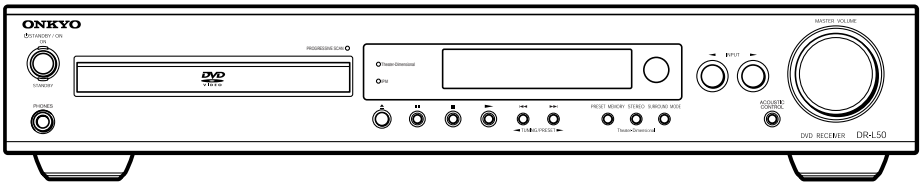
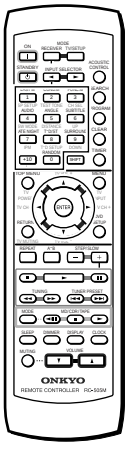
Ref. No. 3744
082002

ONKYO SERVICE MANUAL

DVD RECEIVER
MODEL DR-L50





RC-505M

Titanium color models

UDS4P, UDT3P	120V AC, 60Hz
UGT3P, UGR6P	220-230V AC, 50/60Hz
UPP2P, UPA4P	230-240V AC, 50Hz

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ ON THE SCHEMATIC DIAGRAM AND IN THE PARTS LIST ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE THESE COMPONENTS WITH ONKYO PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL.
MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

ONKYO®
IMAGINATIVE SIGHT & SOUND

SPECIFICATIONS

AMPLIFIER SECTION

Power Output (FTC) **All channels 25 watts per channel min. RMS. into 6 ohms two channel driven, 1,000 Hz with no more than 10% total harmonic distortion.**

Continuous power output (DIN)
All channels 21 watts per channel min. RMS. into 6 ohms two channel driven, 1,000 Hz

Continuous Power output (EIAJ)
All channel 26 watts per channel min. RMS. into 6 ohms two channel driven, 1,000 Hz

Total Harmonic Distortion 10 % at rated power
0.2 % at 1 watt output

IM Distortion 10 % at rated power
0.2 % at 1 watt output

Damping Factor 40 at 8 ohms

Input Sensitivity and Impedance

DIGITAL OPTICAL IN	–21 to –15 dBm
LINE (TV/LINE, MD/CDR/TAPE)	200 mV/50 kohms

Output Level and Impedance

DIGITAL OPTICAL OUT	–21 to – 15 dBm
REC OUT (MD/CDR/TAPE)	200 mV, 2.2 kohms
PRE OUT(SUBWOOFER)	1 V, 470 ohms

Frequency Response 20 to 30,000 Hz : +/– 0.8 dB
Acoustic Control 1: +9 dB at 82 Hz
2: +9 dB at 82 Hz
+6 dB at 10,000 Hz
Signal-to-noise Ratio 100 dB (0.5 V INPUT LINE)
Muting –50 dB

DVD SECTION

Signal readout system Optical non-contact
Linear velocity 3.49 m/s (Single Layer)
3.84 m/s (Dual Layer)
Error correction system Reed Solomon Product Code
Signal system PAL/Auto Mode
Regional restriction code European area: 2
South-east Asian area: 3
Australian and South American area: 4
PRC: 6

Output Level and Impedance

Composite	1.0Vp-p, 75 ohms
S-Video	Y:1.0 Vp-p, 75 ohms
	C: 0.286 Vp-p, 75 ohms
Component	Y:1.0 Vp-p, 75 ohms
(Except European models)	Pb, Pr: 0.7 Vp-p, 75 ohms
RGB(European models)	0.7 Vp-p, 75 ohms

Laser Semiconductor laser, wavelength 650 nm
Frequency response 10 Hz to 44 kHz (96 kHz)
Signal-to-noise ratio (digital audio) More than 100 dB
Audio dynamic range (digital audio) More than 93 dB
Harmonic distortion (digital audio) Less than 0.025%
Wow and flutter Below threshold of measurability
Operating conditions Temperature: 5°C to 35°C (41°F to 95°F),
Operation status: Horizontal

TUNER SECTION

Tuning Range
FM: 87.50 to 108.00 MHz (50 kHz steps)
AM: (South American models) 530 to 1710 kHz (10 kHz steps) | (Other models) 522 to 1611 kHz (9 kHz steps)

Usable Sensitivity
FM: Mono 11.2 dBf, 1.0 µV (75 ohms IHF)
0.9 µV (75 ohms DIN)
Stereo 17.2 dBf, 2.0 µV (75 ohms IHF)
23 µV (75 ohms DIN)
AM: 30 µV

50 dB Quieting Sensitivity
FM: Mono 17.2 dBf, 2.0 µV (75 ohms)
Stereo 37.2 dBf, 20.0 µV (75 ohms)

Capture Ratio FM: 2.0 dB

Image Rejection Ratio FM: 40 dB (South American models) | 85 dB (Other models)
AM: 40 dB

IF Rejection Ratio
FM: 90 dB
AM: 40 dB

Signal-to-noise Ratio
FM: Mono 73 dB, IHF
Stereo 67 dB, IHF
AM: 40 dB

Alternate Channel Att. (+/– 400 kHz) FM: Mono 55 dB, IHF
Selectivity FM: 50 dB, DIN 55dB, IHF
AM Suppression Ratio FM: 50 dB

Harmonic Distortion
FM: Mono 0.2 %
Stereo 0.3 %
AM: 0.7 %

Frequency response FM: 30 to 15,000 Hz (+/– 1.0 dB)
Stereo Separation FM: 45 dB at 1,000 Hz
30 dB at 100 to 10,000 Hz
Stereo Threshold FM: 17.2 dBf, 20 µV (75 ohms)
Output FM: 750 mV
AM: 150 mV

GENERAL

Power Supply AC 120 volts, 60 Hz
Power Consumption : 130 W
Power Consumption (standby mode) : 2.0 W
29 W (*)

Power Supply AC 230-240 volts, 50 Hz
Power Consumption : 120 W
Power Consumption (standby mode) : 2.6 W
29 W (*)

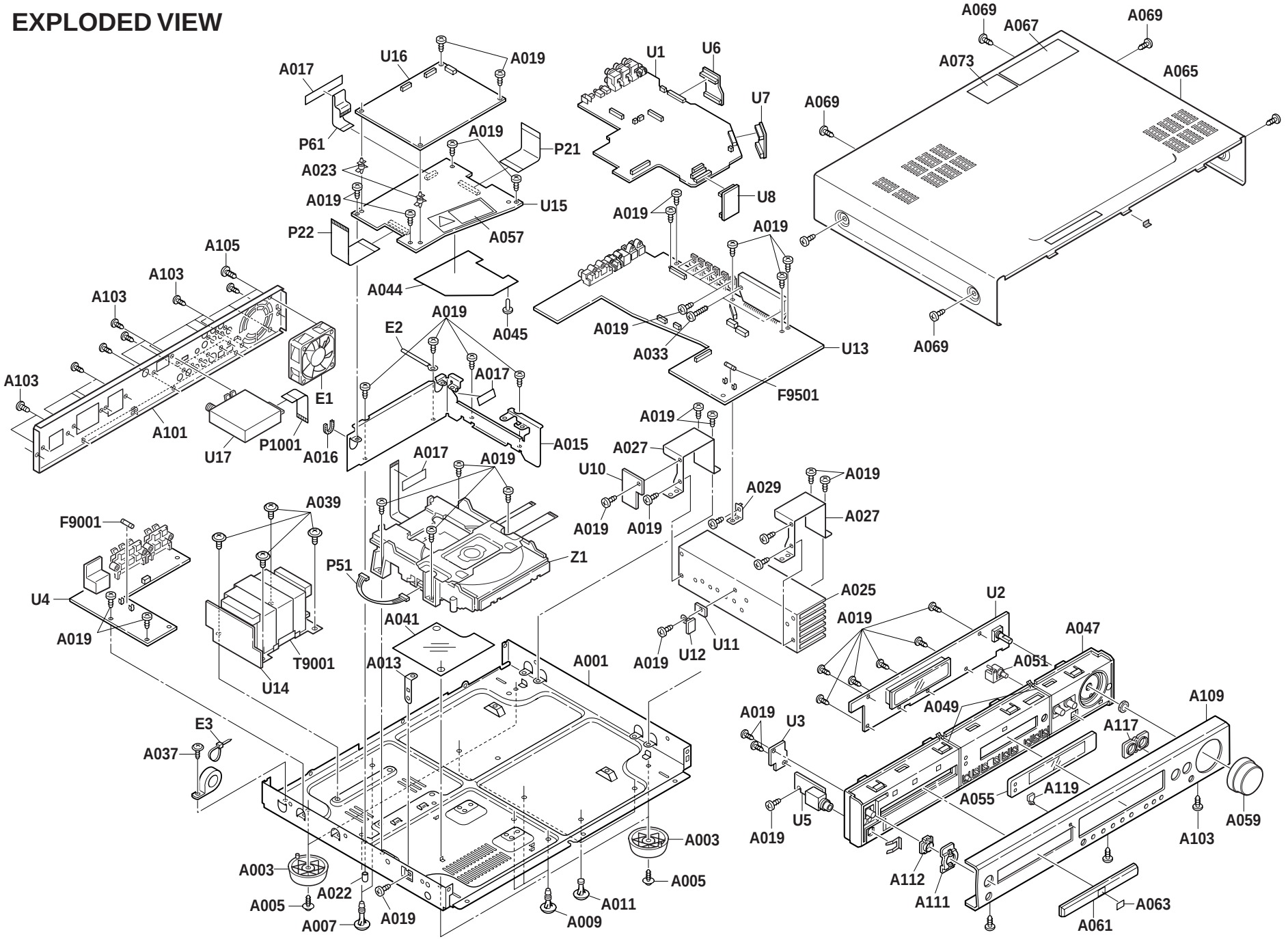
Power Supply AC 220-230 volts, 50/60 Hz
Power Consumption : 120 W
Power Consumption (standby mode) : 2.6 W
29 W (*)

Dimensions (W x H x D) 435×81×366 mm ($17^{1}/_{8}$×$3^{3}/_{16}$×$14^{7}/_{16}$ ins.)
Weight 7.0 kg (15.4 lb.)

(*) When clock display is on.

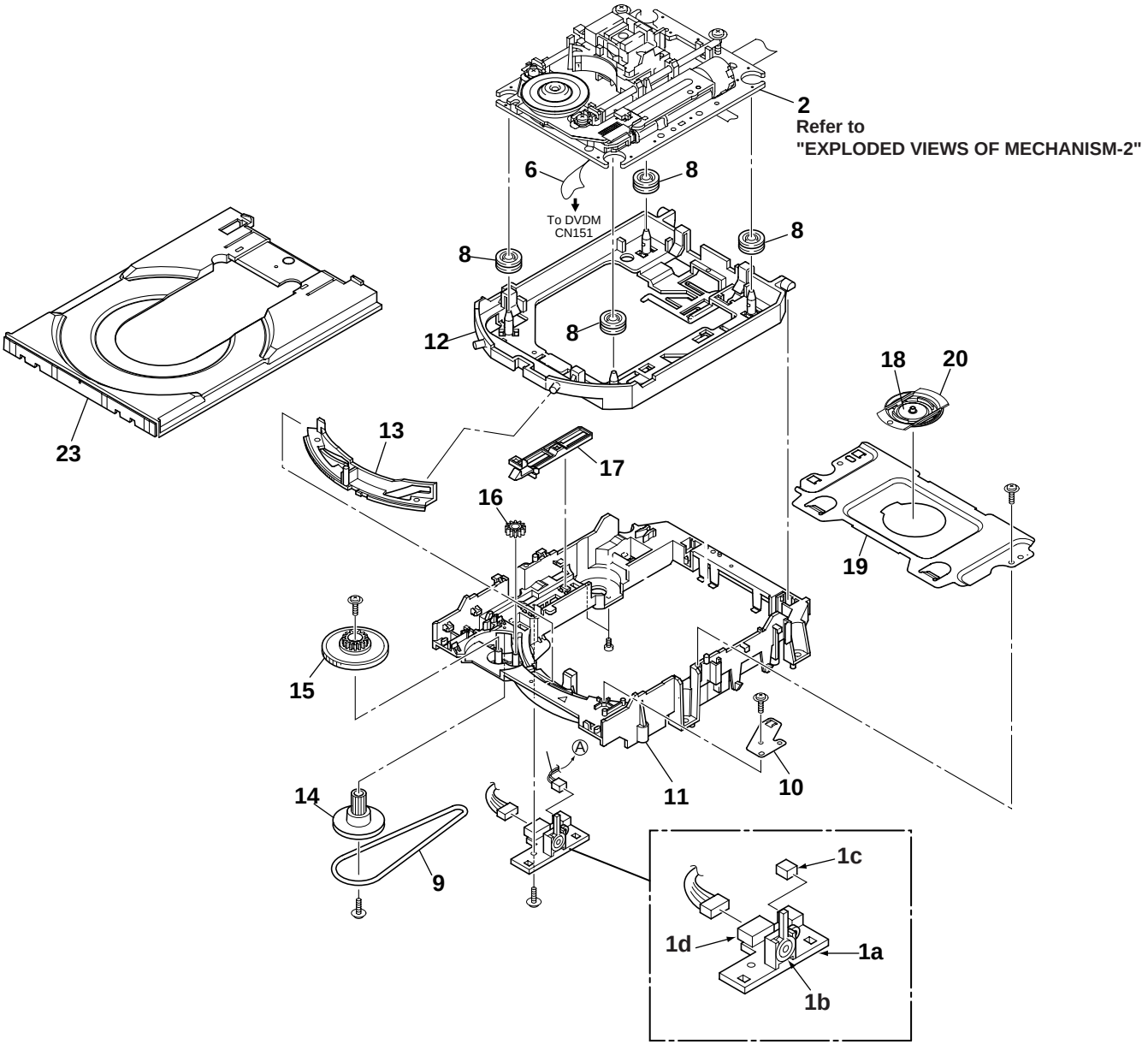
Specifications and features are subject to change without notice.

EXPLODED VIEW



EXPLODED VIEWS OF MECHANISM-1

DVD MECHANISM:DB-VLD304



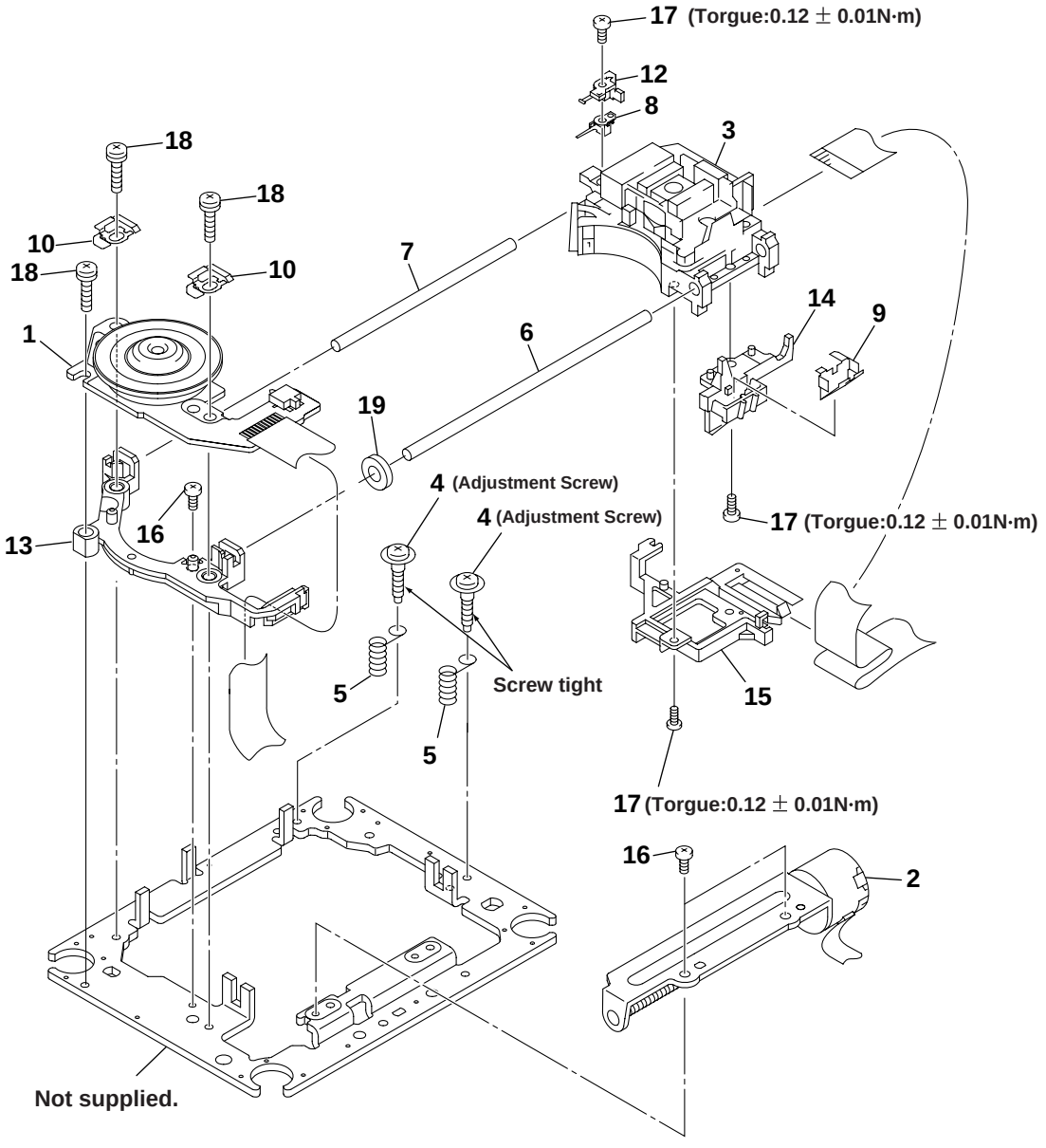
PARTS LIST

No.	Description	Part No.
1a	Loading switch PC board	VNP1836
1b	Switch	VSK1011
1c	Connector KR(2P)	S2B-PH-K
1d	Connector KR(5P)	S5B-PH-K
2	Traverse mechanism assy	VXX2782
6	Flexible Cable (26P)	VDA1864
8	Floating Rubber	VEB1327
9	Belt	VEB1328
10	Stabilizer	VNE2253
11	Loading Base	VNL1917

No.	Description	Part No.
12	Float Base DVD	VNL1918
13	Drive Cam	VNL1919
14	Gear Pulley	VNL1921
15	Loading Gear	VNL1922
16	Drive Gear	VNL1923
17	SW Lever	VNL1925
18	Clamper Plate	VNE2251
19	Bridge	VNE2252
20	Clamper	VNL1924
23	Tray ABS	VNL1920

EXPLODED VIEWS OF MECHANISM-2

DVD MECHANISM:DB-VLD304 (TRAVERSE UNIT)

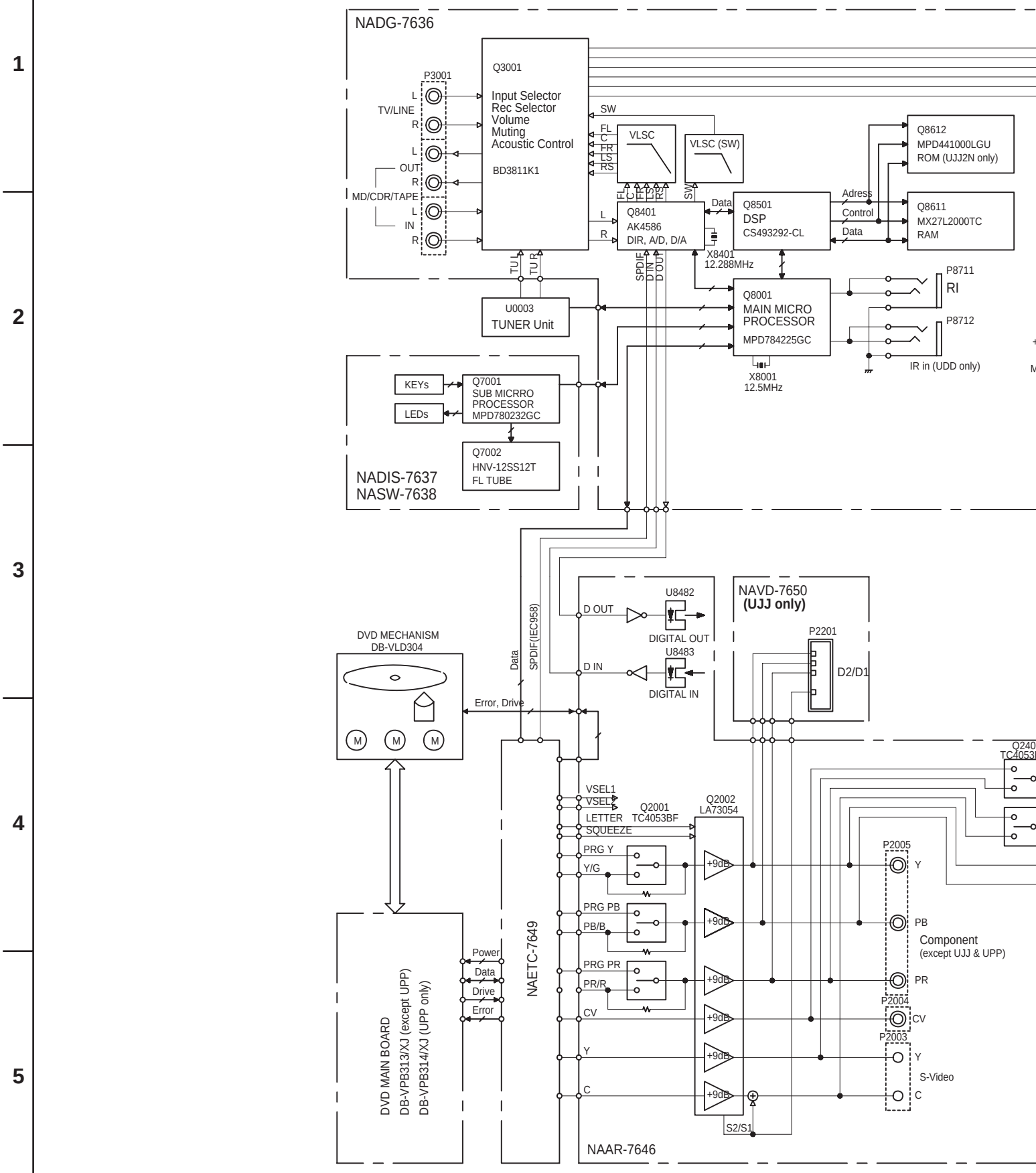


PARTS LIST

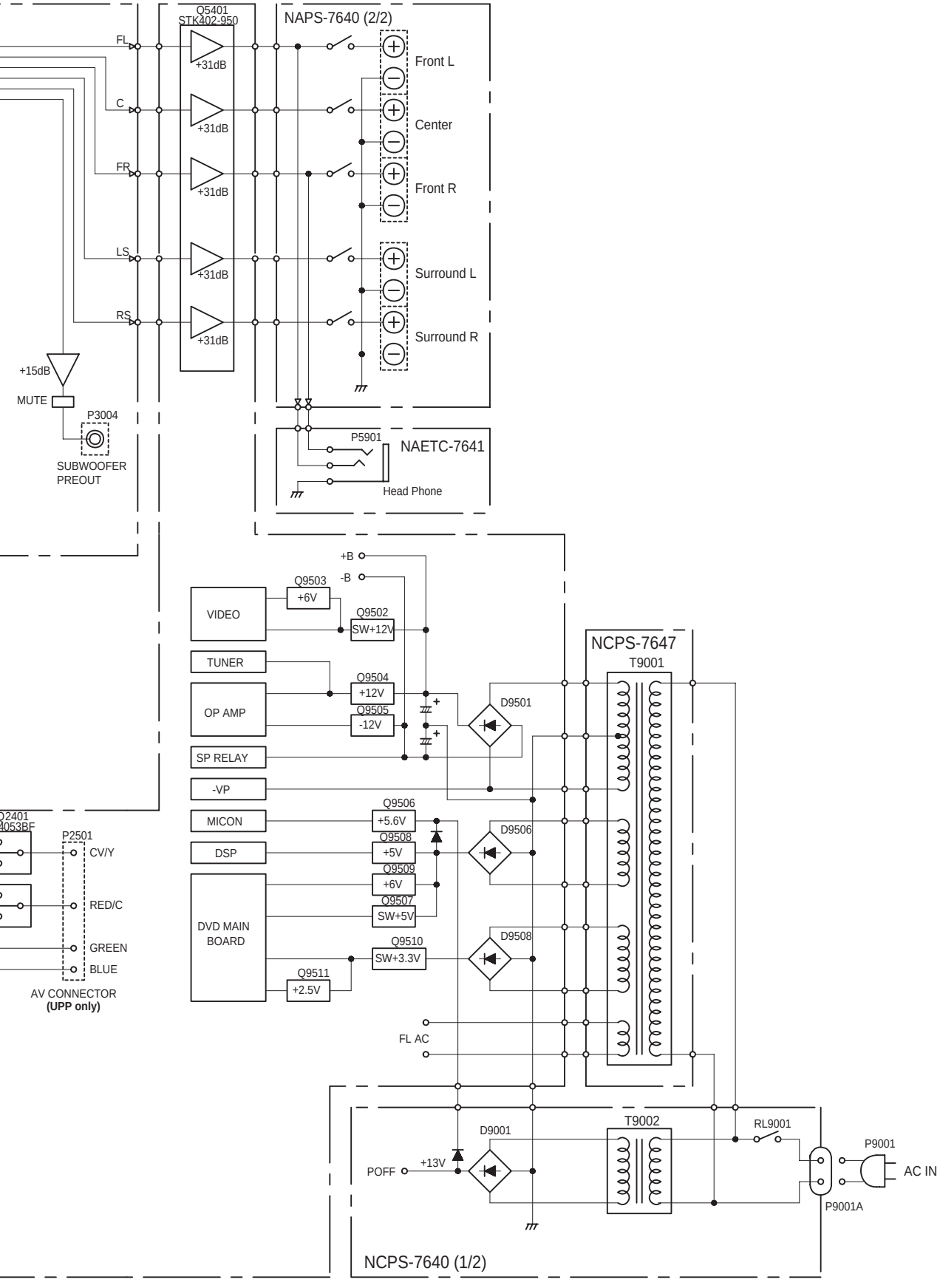
No.	Description	Part No.
1	Spindle Motor	VXM1088
2	Stepping Motor	VXM1090
3	Pickup Assy-S	OXX8003
4	Skew Screw	VBA1080
5	Skew Spring	VBH1335
6	Guide Bar	VLL1514
7	Sub Guide Bar	VLL1515
8	Hold Spring	VNC1017

No.	Description	Part No.
9	Joint Spring	VNC1019
10	Support Spring	VNC1020
11	Mechanism Chassis	---
12	Slider	VNL1811
13	Spacer	VNL1913
14	Joint	VNL1914
15	FFC Holder	VNL1915
16	Screw	BBZ20P050FZK
17	Screw	OBA8009
18	Screw	PMA26P100FMC
19	Damper Sheet	VEB1335

BLOCK DIAGRAM



E F G H


Q5401
STK402-950
NAPS-7640 (2/2)
FL
C
FR
LS
RS
+31dB
Front L
Center
Front R
Surround L
Surround R
+15dB
MUTE
P3004
SUBWOOFER
PREOUT
P5901
NAETC-7641
Head Phone
+B
-B
Q9503
+6V
Q9502
SW+12V
VIDEO
TUNER
OP AMP
SP RELAY
-VP
MICON
DSP
DVD MAIN
BOARD
Q9504
+12V
Q9505
-12V
Q9506
+5.6V
Q9508
+5V
Q9509
+6V
Q9507
SW+5V
Q9510
SW+3.3V
Q9511
+2.5V
NCPS-7647
T9001
D9501
D9506
D9508
FL AC
T9002
D9001
RL9001
POFF
+13V
P9001
AC IN
P9001A
NCPS-7640 (1/2)
Q2401
4053BF
P2501
CV/Y
RED/C
GREEN
BLUE
AV CONNECTOR
(UPP only)

EXPLODED VIEW PARTS LIST DR-L50

[NOTES]
UDT3P: Some Asian area (AC 230V, Regional code-3)
UDS4P: South America area (Regional code-4)
UPP2P: European area (Regional code-2)
UPA4P: Australian area (Regional code-4)
UGR6P: Chinese area (Regional code-6)
UGT3P: Korean area (Regional code-3)

REF NO.	NAME	DESCRIPTION	PART NO.
A001	CHASSIS		27100426
A003	BOTTOM LEG	(AS)	27175392
A005	SCREW	3TTW+8B(BC)	831430088
A007	HOLDER	KGLS-18RF	27190657
A009	HOLDER	KGLS-10RF	27190428A
A011	HOLDER	KGPS-10RF	27190813
A013	RETAINER	(MB)	27141821
A015	BRACKET	(SHLD)	27130888A
A016	BUSHING	KG-016L	28170031
A017	TAPE	TAPE(CROSS-16U)	29110083
A019	SCREW	3TTB+8B	838130088
A022	CAP	(SCREW)	28330135A
A023	HOLDER	MSPLS-3	27191177
A025	HEAT SINK	175 RG-418378	27160515
A027	BRACKET	(H)	27130889
A029	BRACKET	BRACKET	27130745
A033	SCREW	3TTB+16S(BC)	838430167
A037	SCREW	3TTW+8B(BC)	831430088
A039	SCREW	4TTC+6C(BC)	830440069
A041	ISO PLT	(B)	28175288
A044	ISO PLT	(T)	28175292
A045	RIVET	P-RIVET NRP-345	880009
A047	F BRACKET	AS	27111297
A049	TAPE	.	29110161
A051	KNOB	(ACC)AS	28325947A
A055	CLEAR PLT	.	28191973
A057	LABEL(DVD2)	..	29362648
A059	KNOB	(VOL)AS	28326033
A061	DOOR	.	28148484A
A063	PLATE	(DVD)	27262651
A065	COVER	.	28184848
A067	LABEL	(PATENT)	29362760A
A069	SCREW	3TTB+8B(UN)	838930088
A073	LABEL	(COVER)	29362772
A101	REAR PANEL	UPP2P	27123021
A101	REAR PANEL	UPA4P	27123026
A101	REAR PANEL	UGR6P	27123024
A101	REAR PANEL	UDT3P	27123022
A101	REAR PANEL	UGT3P	27123025
A101	REAR PANEL	UDS4P	27123023
A103	SCREW	3TTB+8B(BC)	838430088
A105	SCREW	5STP+10BQ(BC)	833450102
A109	F PANEL	.	27212437
A109	F PANEL	.	27212449
A111	FACET	(STBY)	28198930
A112	GUIDE	(STBY)	27268048
A119	FACET	(REC)	28198840
A117	GUIDE	(INPUT)	27268062
E1	FAN	D06T-24TH	24502313
E2	CLIP	CS-1U	27255004
E3	WIRE TIE	BINDER(CLAMPER)UL	260208
F9001	FUSE	1.25A-SE-EAWK FUSE	252071
F9001	FUSE	2.5A-UL/T-237	252160
F9501	FUSE	4A-SE-EAK FUSE	252077
P1001	FFC	NCFC7-150512	2047150512
P21	FFC	NCFC4-30029	204430029
P22	FFC	NCFC4-30029	204430029
P51	SOCKET AS	NSAS-10P0997	20022391010
P61	FFC	NCFC4-171012	2044171012
T9001	P TRANS	NPT-1455P	2301658
T9001	P TRANS	NPT-1455G	2301659
T9001	P TRANS	NPT-1455D	2301657
U17	TUNER UNIT	TFCE1E512A	240135
U17	TUNER UNIT	TFCE1E512A	240135

U17	TUNER UNIT	TFCE1E512A	240135
U17	TUNER UNIT	TFCE1E512A	240135
U17	TUNER UNIT	TFCE1E512A	240135
U17	TUNER UNIT	TFCE1U114B	240134A
U16	PWB AS	DB-VPB314/XJ	24150034
U16	PWB AS	DB-VPB313/XJ	24150033
Z1	DVD M	DB-VLD304	24801015
U1	DSP AND MICROPROCESSOR PC board	NADG-7636-1	1A952536-1B
	DSP AND MICROPROCESSOR PC board	NADG-7636-1	1A952536-1C
	DSP AND MICROPROCESSOR PC board	NADG-7636-1	1A952536-1D
	DSP AND MICROPROCESSOR PC board	NADG-7636-1	1A952536-1E
	DSP AND MICROPROCESSOR PC board	NADG-7636-1	1A952536-1F
U2	DISPLAY PC board	NADIS-7637	1A952537-1B
	DISPLAY PC board	NADIS-7637	1A952537-1C
	DISPLAY PC board	NADIS-7637	1A952537-1D
	DISPLAY PC board	NADIS-7637	1A952537-1E
	DISPLAY PC board	NADIS-7637	1A952537-1F
U3	STANDBY SWITCH PC board	NASW-7638	1A952538-1B
	STANDBY SWITCH PC board	NASW-7638	1A952538-1C
	STANDBY SWITCH PC board	NASW-7638	1A952538-1D
	STANDBY SWITCH PC board	NASW-7638	1A952538-1E
	STANDBY SWITCH PC board	NASW-7638	1A952538-1F
U4	POWER SUPPLY PC board	NAPS-7640	1A952540-1B
	POWER SUPPLY PC board	NAPS-7640	1A952540-1C
	POWER SUPPLY PC board	NAPS-7640	1A952540-1D
	POWER SUPPLY PC board	NAPS-7640	1A952540-1E
	POWER SUPPLY PC board	NAPS-7640	1A952540-1F
U5	PHONES JACK PC board	NAETC-7641	1A952541-1B
	PHONES JACK PC board	NAETC-7641	1A952541-1C
	PHONES JACK PC board	NAETC-7641	1A952541-1D
	PHONES JACK PC board	NAETC-7641	1A952541-1E
	PHONES JACK PC board	NAETC-7641	1A952541-1F
U6	CONNECTOR PC board	NAETC-7642	1A952542-1B
U7	CONNECTOR PC board	NAETC-7643	1A952543-1B
U8	CONNECTOR PC board	NAETC-7644	1A952544-1B
U10	ISOLATION PC board	NAETC-7760	1A952560-1B
U11	HOLDER PC board	NAETC-7639	1A952539-1B
U12	THERMISTOR PC board	NAETC-7645	1A952545-1B
U13	MAIN PC board	NAAR-7646	1A952546-1B
	MAIN PC board	NAAR-7646	1A952546-1C
U14	TRANSFORMER TERMINAL PC board	NAPS-7647	1A952547-1B
	TRANSFORMER TERMINAL PC board	NAPS-7647	1A952547-1C
U15	DVD CONNECTOR PC board	NAETC-7649	1A952549-1B
	DVD CONNECTOR PC board	NAETC-7649	1A952549-1C

PACKING PARTS LIST

REF NO.	NAME	DESCRIPTION	PART NO.
A401	PAD	.	29092068
A405	SHEET	.	29095847
A407	TAPE	(SEROHAN)NITTO NO.29	29110149
A409	PP TAPE	W48 OPP TAPE	29110148
A411	POLY BAG	350*250	29100097-1A
A417	LABEL	(SP CABLE)	29363059A
A419	SHEET	(CORNER)	29095935
A501	CARTON	UPP	29053955
A501	CARTON	UGR	29053956
A5031	EAN LABEL	.	29363228
A505	LABEL	UPA4P	29363233
A505	LABEL	UDT3P	29363230
A505	LABEL	UGT3P	29363232
A505	LABEL	UDS4P	29363231
A511	LABEL	(PE-LD)	29361573
A901	BATTERY	UM-3	3010054
A902	ANT COIL	NMA-3057	232140
A910	RGB CORD	YAF11-0697	2010368
A911	CORD AS	(S CORD) or	2010380 or
	CORD AS	TPX3000	2010360
A912	PIN CORD AS	RCA-3P(YWR) or	2010359 or
	PIN CORD AS	RCA-3P(YWR)	2010359TAIDA
A913	FM-ANT-AS	P	292116
A913	FM ANT AS	Type D	292160
A914	FM ADPTER	YAE21-0237	25065462
A921	REMO CON	RC-505M	24140505
A931	INS MANUAL	E(DR-L50)	29343399

A932	INS MANUAL	F(DR-L50)	29343400
A933	INS MANUAL	G(DR-L50)	29343401
A938	INS MANUAL	Cs(DR-L50)	29343407
A939	INS MANUAL	Cs(DR-L50)	29343406
A934	INS MANUAL	I(DR-L50)	29343402
A935	INS MANUAL	S(DR-L50)	29343403
A936	INS MANUAL	D(DR-L50)	29343404
A937	INS MANUAL	Sw(DR-L50)	29343405
A940	INST SHEET	.	29355410
P9001	AC CORD	AS-CEE	253299HIT
P9001	AC CORD	AS-SAA or	253350KAW or
	AC CORD	AS-SAA	253351HIT
P9001	AC CORD	AS-CCEE	253309HIT
P9001	AC CORD	AC-UC-2	253296HIT

PC BOARD PARTS LIST

REF NO.	NAME	DESCRIPTION	PART NO.
U1	**DSP AND MICROPROCESSOR PC BOARD (NADG-7636-1B/-B/1C/1D/1E/1F)**		
REF NO.	**NAME**	**DESCRIPTION**	**PART NO.**
Q3001	IC	BD3811K1	22241761R3
Q3101	IC	NJM4565V	22241554R2
Q3113	IC	NJM4565V	22241554R2
Q3201	IC	NJM4565V	22241554R2
Q8001	IC	MPD784225GC-182-8BT	22241875R3
Q8301	IC	NJM4565V	22241554R2
Q8302	IC	NJM4565V	22241554R2
Q8303	IC	NJM4565V	22241554R2
Q8304	IC	NJM4565V	22241554R2
Q8305	IC	NJM4565V	22241554R2
Q8306	IC	NJM4565V	22241554R2
Q8307	IC	NJM4565V	22241554R2
Q8308	IC	NJM4565V	22241554R2
Q8309	IC	NJM4565V	22241554R2
Q8401	IC	AK4586	22241620R3
Q8451	IC	TC7WU04FU	22240935R2
Q8501	IC	CS493292-CL	22241455R2
Q8601	IC	TC74VHC574FT	22274574ER2TO
Q8602	IC	TC74VHC574FT	22274574ER2TO
Q8603	IC	TC74VHC74FT	22274074ER2TO
Q8611	IC	MX27L2000TC-12	18093002618AD
(Q8611)	IC	MX27L2000TC-12	(22241809R3)
Q8651	IC	TC74VHC541FT	22274541ER2TO
Q8671	IC	TC74HCT7007AF	222740077R2TO
Q8691	IC	BA33C25FP	22241778R2
Q8801	IC	BU1923F	22241297R2
Q1101	TR	2SC4617	2216540R2
Q3111	TR	RN1441	2215410R2
Q3112	TR	RN1441	2215410R2
Q3114	TR	RN1441	2215410R2
Q3115	TR	RN1441	2215410R2
Q3116	TR	DTA114EE	2216710R2
Q3202	TR	DTA114EE	2216710R2
Q3203	TR	RN1441	2215410R2
Q8023	TR	DTA124EE	2216490R2
Q8060	TR	DTC144EE	2216390R2
Q8081	TR	2SA1774	2216410R2
Q8082	TR	DTC114EE	2216730R2
Q8851	TR	2SC4617	2216540R2
D3001	ZENER D	UDZ6.8B or	224490680R2 or
	ZENER D	UDZS6.8B	224550680R2
D3002	ZENER D	UDZ6.8B or	224490680R2 or
	ZENER D	UDZS6.8B	224550680R2
D3111	C-DIODE	1SS355	223269R2
D3201	C-DIODE	1SS355	223269R2
D3202	C-DIODE	1SS355	223269R2
D8001	C-DIODE	1SS355	223269R2
D8002	C-DIODE	1SS355	223269R2
D8023	C-DIODE	1SS355	223269R2
D8024	ZENER D	UDZ5.1B	224490510R2
D8060	C-DIODE	1SS355	223269R2
D8061	C-DIODE	1SS355	223269R2
D8062	ZENER D	UDZ7.5B	224490750R2
D8401	C-DIODE	1SS355	223269R2
D8402	C-DIODE	1SS355	223269R2

D8851	C-DIODE	1SS355	223269R2
D8852	C-DIODE	1SS355	223269R2
L8001	CHOKE COIL	NCH-1479	231237K470R2
L8401	CHOKE COIL	NCH-1471	231237M022R2
L8402	CHOKE COIL	NCH-1471	231237M022R2
L8403	CHOKE COIL	NCH-1471	231237M022R2
L8404	CHOKE COIL	NCH-1471	231237M022R2
L8451	CHOKE COIL	NCH-1479	231237K470R2
L8501	CHOKE COIL	NCH-1471	231237M022R2
L8502	CHOKE COIL	NCH-1471	231237M022R2
L8601	CHOKE COIL	NCH-1479	231237K470R2
L8691	CHOKE COIL	NCH-1479	231237K470R2
L8801	CHOKE COIL	NCH-1477	231237K220R2
X8001	CRYSTAL	HC-49/U03C12.500MHz	3010362R2
X8451	CERA LOCK	CSTCV12.2MTJ0C4	3010324R2
X8801	CRYSTAL	HC-49/U03C4.332MHz	3010332R2
C1002	VR C	CE04W50V-3.3M(VR)	394680337
C1003	VR C	CE04W50V-2.2M(VR)	394680227
C3013	VX C	CE04W16V-10M(VX)	393341007
C3014	VX C	CE04W16V-10M(VX)	393341007
C3015	VX C	CE04W16V-10M(VX)	393341007
C3016	VX C	CE04W16V-10M(VX)	393341007
C3017	VX C	CE04W16V-10M(VX)	393341007
C3018	VX C	CE04W16V-10M(VX)	393341007
C3021	VR C	CE04W16V-10M(VR)	394641007
C3022	VR C	CE04W16V-10M(VR)	394641007
C3023	MY C	MY92-50V-472J	371124724
C3024	MY C	MY92-50V-472J	371124724
C3025	MMT C	MMT50V-224J	375522244
C3026	MMT C	MMT50V-224J	375522244
C3027	MMT C	MMT50V-224J	375522244
C3028	MMT C	MMT50V-224J	375522244
C3029	MMT C	MMT50V-154J	375521544
C3030	MMT C	MMT50V-154J	375521544
C3031	MMT C	MMT50V-154J	375521544
C3032	MMT C	MMT50V-154J	375521544
C3111	VX C	CE04W16V-10M(VX)	393341007
C3112	VX C	CE04W16V-10M(VX)	393341007
C3113	VX C	CE04W16V-10M(VX)	393341007
C3115	TF C	ECQ-B50V-103J	374721034
C3116	VX C	CE04W16V-47M(VX)	393344707
C3118	VR C	CE04W50V-2.2M(VR)	394680227
C3121	CERA C	CK45F50V-223Z	335622230
C3122	CERA C	CK45F50V-223Z	335622230
C3201	VR C	CE04W16V-10M(VR)	394641007
C3202	VR C	CE04W16V-10M(VR)	394641007
C3203	VR C	CE04W16V-10M(VR)	394641007
C3206	VR C	CE04W16V-10M(VR)	394641007
C3207	VR C	CE04W16V-10M(VR)	394641007
C8001	VR C	CE04W6.3V-100M(VR)	394621017
C8003	EDL C	FMC0H104Z	3000120
C8004	VR C	CE04W6.3V-100M(VR)	394621017
C8059	VR C	CE04W50V-1.0M(VR)	394680107
C8070	TRIMMER	NTC-45P10	3060011
C8404	VR C	CE04W6.3V-47M(VR)	394624707
C8406	VR C	CE04W6.3V-220M(VR)	394622217
C8410	VR C	CE04W16V-22M(VR)	394642207
C8411	VX C	CE04W16V-10M(VX)	393341007
C8412	VX C	CE04W16V-10M(VX)	393341007
C8414	VR C	CE04W6.3V-47M(VR)	394624707
C8421	VX C	CE04W16V-47M(VX)	393344707
C8422	VX C	CE04W16V-47M(VX)	393344707
C8423	VX C	CE04W16V-10M(VX)	393341007
C8424	VX C	CE04W16V-10M(VX)	393341007
C8425	VX C	CE04W16V-47M(VX)	393344707
C8426	VX C	CE04W16V-47M(VX)	393344707
C8503	VR C	CE04W6.3V-47M(VR)	394624707
C8507	VR C	CE04W6.3V-47M(VR)	394624707
C8604	VR C	CE04W6.3V-47M(VR)	394624707
C8692	VR C	CE04W6.3V-47M(VR)	394624707
C8693	VR C	CE04W6.3V-47M(VR)	394624707
C8801	VR C	CE04W6.3V-100M(VR)	394621017
C8806	VR C	CE04W6.3V-100M(VR)	394621017
P1001A	SOCKET	NSCT-15P1609	25051822
P3001	JACK	NPJ-6PDBL159	25045300

P3004	PIN JACK	NPJ-1PDBL382	25045567
P3111	SOCKET	NSCT-12P1027	25051237
P3112	SOCKET	NSCT-14P1029	25051239
P3113	SOCKET	NSCT-12P1027	25051237
P5008	PLUG	NPLG-2P83	25055099
P7001A	PLUG	NPLG-11P139	25055155
P8006	PLUG	NPLG-2P29	25055038
P8151A	PLUG	NPLG-14P142	25055158
P8153	SOCKET	NSCT-7P2241	25052344
P8403A	PLUG	NPLG-2P130	25055146
P8404A	PLUG	NPLG-3P131	25055147
P8711	ST JACK	LGY2502-0200C	25045696
P8852A	PLUG	NPLG-2P130	25055146
P8853	PLUG	NPLG-2P29	25055038
U2	**DISPLAY PC BOARD (NADIS-7637-1B/1C/1D/1E/1F)**		
REF NO.	**NAME**	**DESCRIPTION**	**PART NO.**
Q7001	FL TUBE	HNV-12SS12T	212228A
Q7001A	HOLDER	(FL)	27191169
Q7002	IC	MPD780232GC-070-8BT	22241814R3
Q7003	REMO SENS	PIC-37043TE2	241337
Q7003A	SPACER		27270431
Q7004	TR	DTC114EE	2216730R2
Q7005	TR	DTC114EE	2216730R2
Q7006	TR	DTC114EE	2216730R2
Q7007	TR	DTC114EE	2216730R2
Q7008	TR	DTC114EE	2216730R2
Q7009	TR	DTC114EE	2216730R2
Q7010	TR	DTC144EE	2216390R2
D7001	ZENER D	UDZ4.7B	224490470R2
D7002	DIODE	GP104003E	22380035
D7005	LED	SEL2410G-C or	225318C or
	LED	SEL2410G-D	225318D
D7006	LED	SEL2410G-C or	225318C or
	LED	SEL2410G-D	225318D
D7007	LED	SEL2410G-C	225318C
D7007	LED	SEL2410G-D or	225318D or
D7008	LED	SEL2910A-TP6	225390
X7001	CERA LOCK	CST5.00MGW	3010242
C7005	ELECT C	CE04W6.3V-100M(S)	353721019
C7012	ELECT C	CE04W6.3V-100M(S)	353721019
C7015	ELECT C	CE04W50V-22M	355782209
S7001	R ENCODE	EC16B2420	25065606
S7003	PUSH SW	NPS-111-S662	25035699
S7004	PUSH SW	NPS-111-S662	25035699
S7005	PUSH SW	NPS-111-S662	25035699
S7006	PUSH SW	NPS-111-S662	25035699
S7007	PUSH SW	NPS-111-S662	25035699
S7008	PUSH SW	NPS-111-S662	25035699
S7009	PUSH SW	NPS-111-S662	25035699
S7010	PUSH SW	NPS-111-S662	25035699
S7011	PUSH SW	NPS-111-S662	25035699
S7012	PUSH SW	NPS-111-S662	25035699
S7013	PUSH SW	NPS-111-S662	25035699
S7014	PUSH SW	NPS-111-S676	25035713R2
P7001	SOCKET AS	NSAS-22P1050	2002E392220
P7002	SOCKET AS	NSAS-10P1078	200EE391013
U3	**STANDBY SWITCH PC BOARD (NASW-7638-1B/1C/1D/1E/1F)**		
REF NO.	**NAME**	**DESCRIPTION**	**PART NO.**
D7003	LED	SEL2110R-TP6	225389
D7004	LED	SEL2910A-TP6	225390
S7002	PUSH SW	NPS-111-S662	25035699
U4	**POWER SUPPLY PC BOARD (NAPS-7640-1B/1C/1D/1E/1F)**		
REF NO.	**NAME**	**DESCRIPTION**	**PART NO.**
Q5801	TR	DTA114EE	2216710R2
Q5802	TR	DTA114EE	2216710R2
Q5803	TR	DTC123JE	2216740R2
Q5804	TR	DTC123JE	2216740R2
Q5805	TR	DTC123JE	2216740R2
Q9001	TR	DTC123JE	2216740R2
D5801	C-DIODE	1SS355	223269R2
D5802	C-DIODE	1SS355	223269R2
D5803	C-DIODE	1SS355	223269R2
D9001	DIODE	S1NB60-4062	22380318R2
D9002	C-DIODE	1SS355	223269R2
L5701	S COIL	S-1.3C	231176S

L5702	S COIL	S-1.3C	231176S
L5703	S COIL	S-1.3C	231176S
L5704	S COIL	S-1.3C	231176S
L5705	S COIL	S-1.3C	231176S
T9002	P TRANS	NPT-1358D	2301381
T9002	P TRANS	NPT-1358P	2301382
T9002	P TRANS	NPT-1358DG	2301383
C5701	MMT C	MMT50V-104J	375521044
C5702	MMT C	MMT50V-104J	375521044
C5703	MMT C	MMT50V-104J	375521044
C5704	MMT C	MMT50V-104J	375521044
C5705	MMT C	MMT50V-104J	375521044
C9001	IS C	RE275V-103M	3500196S
C9003	VR C	CE04W25V-470M(VR)	394654717
R5701	METAL O R	RS1/2WBJ-10	443521004
R5702	METAL O R	RS1/2WBJ-10	443521004
R5703	METAL O R	RS1/2WBJ-10	443521004
R5703	METAL O R	RS1/2WBJ-10	443521004
R5704	METAL O R	RS1/2WBJ-10	443521004
R5705	METAL O R	RS1/2WBJ-10	443521004
R5711	METAL R	RNU1WCJ-4.7	453630474
R5712	METAL R	RNU1WCJ-4.7	453630474
R5713	METAL R	RNU1WCJ-4.7	453630474
R5714	METAL R	RNU1WCJ-4.7	453630474
R5715	METAL R	RNU1WCJ-4.7	453630474
R5901	METAL O R	RS1/2WBJ-390	443523914
R5902	METAL O R	RS1/2WBJ-390	443523914
R9001	SOLID R	RC1/2GFKUL-3.3M	431533355
R9002	METAL O R	RS1/2WBJ-22	443522204
R9003	METAL R	RNU1/2WCJ-8.2	453530824
RL5801	RELAY	NRL-2P5A-DC24-164 or	25065636 or
	RELAY	NRL-2P5A-DC24-098 or	25065517 or
	RELAY	NRL-2P5A-DC24-129 or	25065563 or
	RELAY	NRL-2P5A-DC24-142 or	25065586 or
RL5802	RELAY	NRL-1P3A-DC24-165	25065637
RL5803	RELAY	NRL-2P5A-DC24-164 or	25065636 or
	RELAY	NRL-2P5A-DC24-098 or	25065517 or
	RELAY	NRL-2P5A-DC24-129 or	25065563 or
	RELAY	NRL-2P5A-DC24-142 or	25065586 or
RL9001	RELAY	NRL-1P5A-DC12-161 or	25065633 or
	RELAY	NRL-1P5A-DC12-139	25065583
JL5001A	WIRE HOL	NSCT-6P877	25051090
JL5002A	WIRE HOL	NSCT-4P895	25051108
JL5003A	WIRE HOL	NSCT-6P897	25051110
JL5801B	WIRE TRAP	NPLG-5P588	25055626
JL9001A	WIRE HOL	NSCT-3P874	25051087
P5701	TRM	NTM-6PDML256	25060325
P5702	TRM	NTM-4PDML252	25060321
P9001A	AC INLET	NPLG-2P956	25056006
P9001A	AC INLET	NPLG-2P977	25056027
P9001A	AC INLET	NPLG-2P977	25056027
P9001C	CORE	NFY-25 BLACK	230945
P9002C	PLUG	NPLG-2P631	25055675
F9001A	FUSE HOL	NSCT-1P2031	25052133
F9001B	FUSE HOL	NSCT-1P2031	25052133
F9001C	LABEL	2.5A/125V	29360470
U5	**PHONES JACK PC BOARD (NAETC-7641-1B/1C/1D/1E/1F)**		
REF NO.	**NAME**	**DESCRIPTION**	**PART NO.**
L5901	CHOKE COIL	BLM21B222SPT	230921R2
L5902	CHOKE COIL	BLM21B222SPT	230921R2
JL5801A	WIRE HOL	NSCT-5P876	25051089
P5901	JACK	YKB26-5005	25045514
U6	**CONNECTOR PC BOARD (NAETC-7642-1B)**		
REF NO.	**NAME**	**DESCRIPTION**	**PART NO.**
P3112A	PLUG	NPLG-14P666	25055710
P5001	SOCKET	NSCT-14P1029	25051239
U7	**CONNECTOR PC BOARD (NAETC-7643-1B)**		
REF NO.	**NAME**	**DESCRIPTION**	**PART NO.**
P3111A	PLUG	NPLG-12P664	25055708
P5007	SOCKET	NSCT-12P1027	25051237
U8	**CONNECTOR PC BOARD (NAETC-7644-1B)**		
REF NO.	**NAME**	**DESCRIPTION**	**PART NO.**
P3113A	PLUG	NPLG-12P664	25055708
P5002	SOCKET	NSCT-12P1027	25051237
U12	**THERMISTOR PC BOARD (NAETC-7645-1B)**		

REF NO.	NAME	DESCRIPTION	PART NO.
R8851	THERMISTOR	PTH9M04BB222TS2F333	4000149
P8851	SOCKET AS	NSAS-4P0894	2002A390410
U13	**MAIN PC BOARD (NAAR-7646-1B/1C)**		
REF NO.	**NAME**	**DESCRIPTION**	**PART NO.**
Q2001	IC(REGULATOR)	TC4053BF	222840531R2TO
Q2002	IC	LA73054	22241767R2
Q2401	IC(REGULATOR)	TC4053BF	222840531R2TO
Q5401	IC	STK402-950	222123
Q8481	IC	TC7WU04FU	22240935R2
Q9502	IC	PQ12RF1	22241770
Q9503	IC(REGULATOR)	NJM78M06FA or	222780065JRC or
	IC(REGULATOR)	AN78M06F	222780065MAT
Q9504	IC(REGULATOR)	1	222780125NEC
Q9505	IC(REGULATOR)	79M12HF(NJM79M12FA)	222790125JRC
Q9506	IC(REGULATOR)	78M56	222780565
Q9507	IC	PQ05RD11	22241495
Q9508	IC(REGULATOR)	NJM78M05FA	222780055JRC
Q9509	IC(REGULATOR)	NJM7806FA	222780064JRC
Q9510	IC	PQ3RD23	22241771
Q9511	IC(REGULATOR)	MPC2925T	22278025DR2NE
U8482	PHT CP	TOTX179	24120094
Q2007	TR	DTC114EE	2216730R2
Q2402	TR	DTC114EE	2216730R2
Q2403	TR	DTC114EE	2216730R2
Q2404	TR	DTC114EE	2216730R2
Q2501	TR	HN1A01F-GR	2215915R2
Q2502	TR	HN1A01F-GR	2215915R2
Q2503	TR	2SC4617	2216540R2
Q2504	TR	2SA1774	2216410R2
Q5001	TR	2SC1622A(D18) or	2216154R2 or
	TR	2SC1622A(D17)	2216153R2
Q5002	TR	2SC1622A(D18) or	2216154R2 or
	TR	2SC1622A(D17)	2216153R2
Q5003	TR	2SC1622A(D18) or	2216154R2 or
	TR	2SC1622A(D17)	2216153R2
Q5004	TR	2SC1622A(D18) or	2216154R2 or
	TR	2SC1622A(D17)	2216153R2
Q5005	TR	2SC1622A(D18) or	2216154R2 or
	TR	2SC1622A(D17)	2216153R2
Q5501	TR	2SC4617	2216540R2
Q5502	TR	2SC4617	2216540R2
Q5503	TR	2SA1774	2216410R2
Q5504	TR	2SK365-GR	2212445
Q5505	TR	2SC4617	2216540R2
Q5507	TR	2SA950-Y	2211504
Q9501	TR	2SA950-Y	2211504
D2501	DIODE	1SS226	223266R2
D2502	DIODE	1SS226	223266R2
D2503	DIODE	1SS226	223266R2
D2504	DIODE	1SS226	223266R2
D2505	DIODE	1SS226	223266R2
D2506	DIODE	1SS226	223266R2
D5001	C-DIODE	1SS355	223269R2
D5002	C-DIODE	1SS355	223269R2
D5003	C-DIODE	1SS355	223269R2
D5004	C-DIODE	1SS355	223269R2
D5005	C-DIODE	1SS355	223269R2
D5501	ZENER D	UDZS5.1B	224550510R2
D5501	ZENER D	RD5.1SB2 or	224370512R2 or
	C-DIODE	1SS355	223269R2
D9501	DIODE	RBV602	22380038
D9501A	HEAT SINK	RAD-083	27160271
D9501B	SCREW	3P+10FN(BC)	82143010
D9502	DIODE	RL1N4003 or	22380260 or
	DIODE	GP104003E	22380035
D9503	DIODE	RL1N4003 or	22380260 or
	DIODE	GP104003E	22380035
D9504	ZENER D	UDZS27B or	224552700R2 or
	ZENER D	RD27SB	224372700R2
D9505	DIODE	RL1N4003 or	22380260 or
	DIODE	GP104003E	22380035
D9506	DIODE	RBV402 or	22380022F or
	DIODE	D3SBA20 or	22380271F
D9507	DIODE	RL1N4003 or	22380260 or

	DIODE	GP104003E	22380035
D9508	DIODE	RBV402 or	22380022F or
	DIODE	D3SBA20	22380271F
L8481	EMIFIL	BK1608LM182-T	230958R1
L8482	EMIFIL	BK1608LM182-T	230958R1
U8483	PHT CP	TORX179	24120095
C2011	VR C	CE04W6.3V-100M(VR)	394621017
C2014	VR C	CE04W6.3V-100M(VR)	394621017
C2016	VR C	CE04W6.3V-100M(VR)	394621017
C2018	VR C	CE04W6.3V-100M(VR)	394621017
C2020	VR C	CE04W6.3V-100M(VR)	394621017
C2022	VR C	CE04W6.3V-100M(VR)	394621017
C2023	VR C	CE04W6.3V-220M(VR)	394622217
C2027	VR C	CE04W6.3V-1000M(VR)	394621027
C2029	VR C	CE04W6.3V-1000M(VR)	394621027
C2030	VR C	CE04W6.3V-1000M(VR)	394621027
C2031	VR C	CE04W6.3V-1000M(VR)	394621027
C2032	VR C	CE04W6.3V-1000M(VR)	394621027
C2401	VR C	CE04W16V-100M(VR)	394641017
C2501	VR C	CE04W6.3V-1000M(VR)	394621027
C2502	VR C	CE04W6.3V-1000M(VR)	394621027
C2503	VR C	CE04W6.3V-1000M(VR)	394621027
C2504	VR C	CE04W6.3V-1000M(VR)	394621027
C2505	VR C	CE04W16V-100M(VR)	394641017
C5011	VX C	CE04W16V-22M(VX)	393342207
C5012	VX C	CE04W16V-22M(VX)	393342207
C5013	VX C	CE04W16V-22M(VX)	393342207
C5014	VX C	CE04W16V-22M(VX)	393342207
C5015	VX C	CE04W16V-22M(VX)	393342207
C5021	VX C	CE04W6.3V-100M(VX)	393321017
C5022	VX C	CE04W6.3V-100M(VX)	393321017
C5023	VX C	CE04W6.3V-100M(VX)	393321017
C5024	VX C	CE04W6.3V-100M(VX)	393321017
C5025	VX C	CE04W6.3V-100M(VX)	393321017
C5405	VR C	CE04W35V-330M(VR)	394663317
C5406	VR C	CE04W35V-330M(VR)	394663317
C5501	VR C	CE04W6.3V-100M(VR)	394621017
C5502	MMT C	MMT50V-104J	375521044
C5504	VR C	CE04W16V-10M(VR)	394641007
C5506	VR C	CE04W35V-47M(VR)	394664707
C8481	VR C	CE04W6.3V-100M(VR)	394621017
C8486	VR C	CE04W6.3V-100M(VR)	394621017
C9501	MMT C	MMT50V-334J	375523344
C9502	MMT C	MMT50V-334J	375523344
C9503	ELECT C	CE69W35V-5600M	3504370
C9504	ELECT C	CE69W35V-5600M	3504370
C9505	VR C	CE04W35V-100M(VR)	394661017
C9506	VR C	CE04W50V-47M(VR)	394684707
C9511	VR C	CE04W50V-10M(VR)	394681007
C9512	VR C	CE04W50V-10M(VR)	394681007
C9514	VR C	CE04W50V-10M(VR)	394681007
C9516	VR C	CE04W50V-10M(VR)	394681007
C9517	MMT C	MMT50V-334J	375523344
C9518	MMT C	MMT50V-334J	375523344
C9519	VR C	CE04W16V-4700M(VR)	394644727S
C9521	VR C	CE04W16V-1000M(VR)	394641027S
C9522	VR C	CE04W50V-10M(VR)	394681007
C9524	VR C	CE04W50V-10M(VR)	394681007
C9526	VR C	CE04W50V-10M(VR)	394681007
C9528	VR C	CE04W50V-10M(VR)	394681007
C9529	MMT C	MMT50V-334J	375523344
C9530	MMT C	MMT50V-334J	375523344
C9531	VR C	CE04W10V-10000M(VR)	394631037S
C9533	VR C	CE04W6.3V-470M(VR)	394624717
C9535	VR C	CE04W50V-10M(VR)	394681007
R2502	METAL O R	RS1/2WBJ-330	443523314
R2504	METAL O R	RS1/2WBJ-330	443523314
R5041	METAL R	RNU2WCJ-0.22	452732294F
R5042	METAL R	RNU2WCJ-0.22	452732294F
R5043	METAL R	RNU2WCJ-0.22	452732294F
R5044	METAL R	RNU2WCJ-0.22	452732294F
R5045	METAL R	RNU2WCJ-0.22	452732294F
R5401	METAL O R	RS1/2WBJ-47	443524704
R5402	METAL O R	RS1/2WBJ-33	443523304
R5403	METAL O R	RS1WBJ-2.2K	443622224

R5515	METAL O R	RS1WBJ-33	443623304
R5516	METAL O R	RS1WBJ-33	443623304
R9501	METAL R	RNU1WCJ-6.8	453630684
R9502	METAL R	RNU1/2WCJ-6.8	453530684
R9503	METAL R	RNU1/2WCJ-6.8	453530684
R9504	METAL O R	RS1/2WBJ-22	443522204
R9505	METAL O R	RS1/2WBJ-2.2K	443522224
R9507	METAL O R	RS1/2WBJ-56	443525604
R9508	METAL R	RNU1/2WCJ-2.2	453530224
R9509	METAL R	RNU1/2WCJ-2.2	453530224
R9510	METAL R	RNU1/2WCJ-2.2	453530224
R9511	METAL R	RNU1/2WCJ-1	453530104
R9512	METAL R	RNU1WCJ-0.22	453632294
R9513	METAL O R	RS1WBJ-10	443621004
R9514	METAL O R	RS1/2WBJ-22	443522204
J5301B	HOLDER	HOLDER(CLAMP)	27190540-1
J5301C	HOLDER	HOLDER(CLAMP)	27190540-1
JL5001B	WIRE TRAP	NPLG-6P589	25055627
JL5002B	SOCKET	NSCT-4P96	25050268
JL5003B	SOCKET	NSCT-6P98	25050270
JL9001B	WIRE TRAP	NPLG-3P586	25055624
JL9002B	WIRE HOL	NSCT-7P898	25051111
JL9003B	WIRE HOL	NSCT-6P897	25051110
P2001	SOCKET AS	NSAS-20P1053	2009990750UL
P2001A	PLUG	NPLG-10P357	25055374
P2001B	SOCKET AS	NSAS-8P1048	2002E390830
P2001C	PLUG	NPLG-4P132	25055148
P2002	SOCKET AS	NSAS-24P1052	2009990749UL
P2003	SOCKET	NSCT-4P1537	25051750
P2004	PIN JACK	NPJ-1PDYE368	25045547
P2005	PIN JACK	NPJ-3PDB401	25045590
P2501	SOCKET	NSCT-21P2557	25052660
P5001A	PLUG	NPLG-14P666	25055710
P5002A	PLUG	NPLG-12P664	25055708
P5005A	SOCKET	NSCT-12P2209 or	25052312 or
	SOCKET	NSCT-12P2403	25052506
P5006A	SOCKET	NSCT-4P2201 or	25052304 or
	SOCKET	NSCT-4P2395	25052498
P5007A	PLUG	NPLG-12P664	25055708
P5010	RETAINER	(BUS)	27141818
P8404	SOCKET AS	NSAS-6P1026	2009990732UL
F9501A	FUSE HOL	NSCT-1P2031	25052133
F9501B	FUSE HOL	NSCT-1P2031	25052133
U14	**TRANSFORMER TERMINAL PC BOARD (NAPS-7647-1B)**		
REF NO.	**NAME**	**DESCRIPTION**	**PART NO.**
JL9002A	WIRE HOL	NSCT-7P898	25051111
JL9003A	WIRE HOL	NSCT-6P897	25051110
P9002	SOCKET AS	NSAS-4P0994	2009990712AUL
U15	**DVD CONNECTOR PC BOARD (NAETC-7649-1B/1C)**		
REF NO.	**NAME**	**DESCRIPTION**	**PART NO.**
CN21	SOCKET	NSCT-30P2264	25052367
CN22	SOCKET	NSCT-30P2264	25052367
CN51	SOCKET-AS	NSAS-10P0181	2006341015UL
CN61	SOCKET	NSCT-17P2251	25052354
P2002A	PLUG	NPLG-12P359	25055376
P5003	SOCKET AS	NSAS-20P1046	200AE392020
P5004	SOCKET AS	NSAS-30P1047	200AE393020
P51A	PLUG	NPLG-5P352	25055369
P8151	SOCKET AS	NSAS-28P1000	2002E392825

EXPLODED VIEW PARTS LIST OF MECHANISM

DVD MECHANISM: DB-VLD304

The mechanical parts with no part number in the exploded views are not supplied.

REF. NO.	DESCRIPTION	PART NO.
		VNP1836
1a	Loading switch PC board	VSK1011
1b	Push Switch	S2B-PH-K
1c	Connector KR (2P)	S5B-PH-K
1d	Connector KR (5P)	VXX2782
2	Traverse mechanism assy	VDA1864
6	Flexible Flat Cable (26P)	VEB1327
8	Froating Rubber	VEB1328
9	Belt	VNE2253

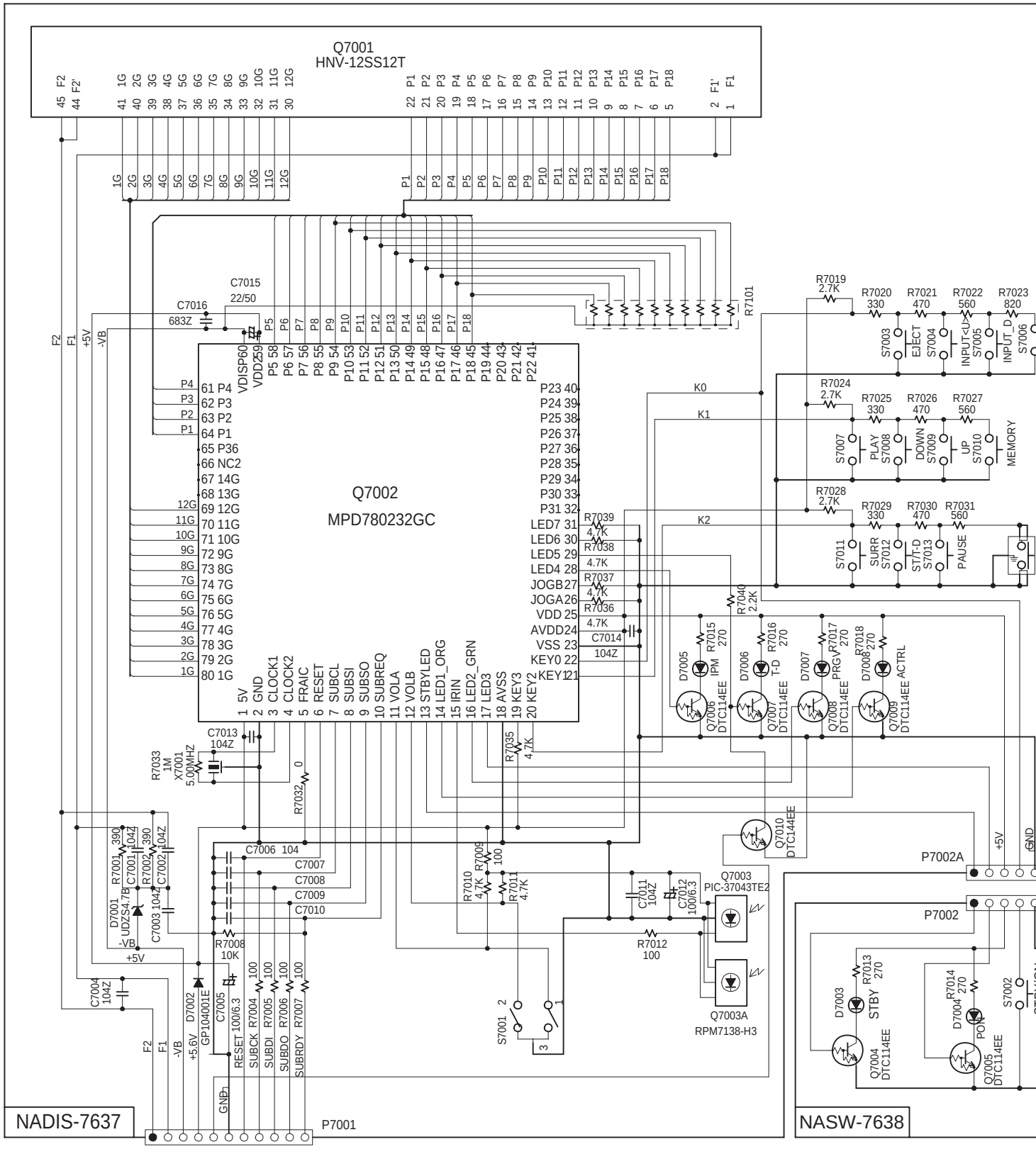
10	Stabilizer	VNL1917
11	Loading base	VNL1918
12	Floating base DVD	VNL1919
13	Drive Cam	VNL1921
14	Gear Pulley	VNL1922
15	Loading gear	VNL1923
16	Drive gear	VNL1925
17	Lever Switch	VNE2251
18	Clamper Plate	VNE2252
19	Bridge	VNL1924
20	Clamper	VNL1920
23	Tray ABS	

TRAVERSE UNIT

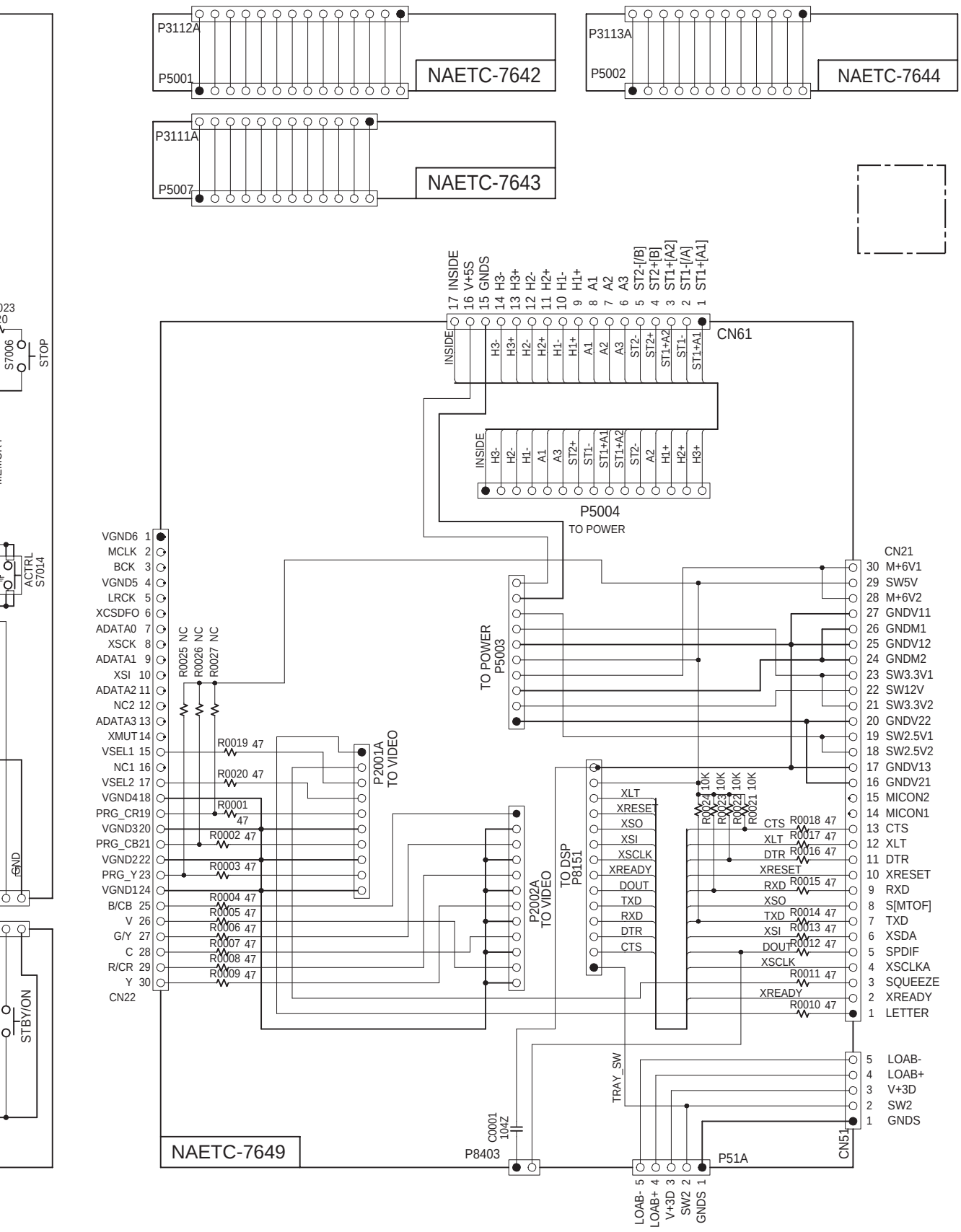
REF. NO.	**DESCRIPTION**	**PART NO.**
1	Spindle Motor	VXM1088
2	Stepping Motor	VXM1090
3	Pick-up ass'y-S	0XX8003
4	Skew Screw	VBA1080
5	Skew Spring	VBH1335
6	Guide ber	VLL1514
7	Sub Guide Bar	VLL1515
8	Hold spring	VNC1017
9	Joint Spring	VNC1019
10	Support Spring	VNC1020
12	Slider	VNL1811
13	Spacer	VNL1913
14	Joint	VNL1914
15	FFC holder	VNL1915
16	Screw	BBZ20P050FZK
17	Screw	OBA8009
18	Screw	PMA26P100FMC
19	Damper sheet	VEB1335

SCHEMATIC DIAGRAMS-1

DISPLAY SECTION



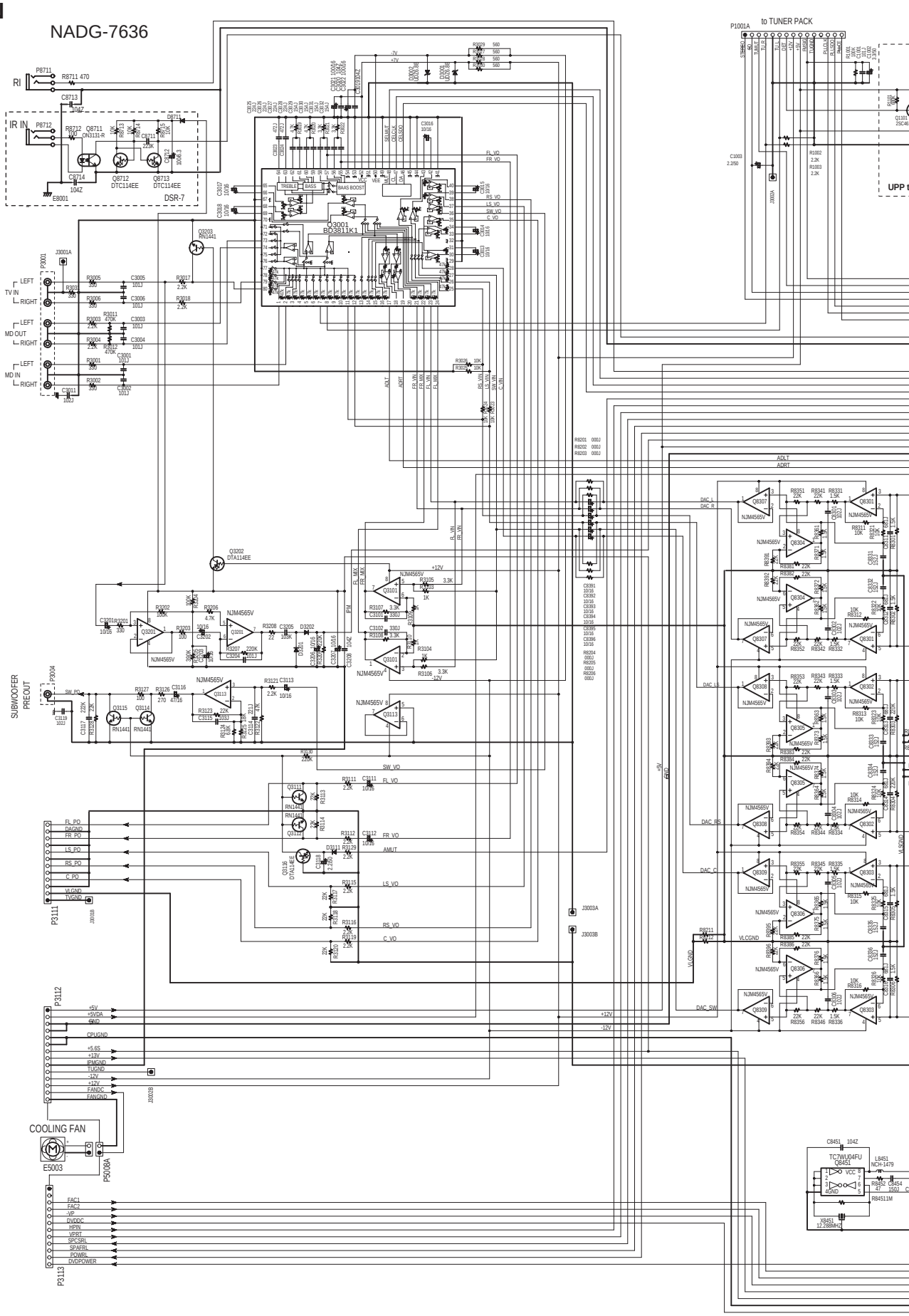
E F G H


P3112A
P5001
NAETC-7642
P3113A
P5002
NAETC-7644
P3111A
P5007
NAETC-7643
17 INSIDE
16 V+5S
15 GNDS
14 H3-
13 H3+
12 H2-
11 H2+
10 H1-
9 H1+
8 A1
7 A2
6 A3
5 ST2-[/B]
4 ST2+[B]
3 ST1+[A2]
2 ST1-[/A]
1 ST1+[A1]
CN61
P5004
TO POWER
TO POWER P5003
CN21
30 M+6V1
29 SW5V
28 M+6V2
27 GNDV11
26 GNDM1
25 GNDV12
24 GNDM2
23 SW3.3V1
22 SW12V
21 SW3.3V2
20 GNDV22
19 SW2.5V1
18 SW2.5V2
17 GNDV13
16 GNDV21
15 MICON2
14 MICON1
13 CTS
12 XLT
11 DTR
10 XRESET
9 RXD
8 S[MTOF]
7 TXD
6 XSDA
5 SPDIF
4 XSCLKA
3 SQUEEZE
2 XREADY
1 LETTER
CN22
P2001A
TO VIDEO
P2002A
TO VIDEO
TO DSP P8151
R0025 NC
R0026 NC
R0027 NC
R0019 47
R0020 47
R0001 47
R0002 47
R0003 47
R0004 47
R0005 47
R0006 47
R0007 47
R0008 47
R0009 47
R0024 10K
R0023 10K
R0022 10K
R0021 10K
R0018 47
R0017 47
R0016 47
R0015 47
R0014 47
R0013 47
R0012 47
R0011 47
R0010 47
TRAY_SW
C0001 1042
P8403
P51A
CN51
5 LOAB-
4 LOAB+
3 V+3D
2 SW2
1 GNDS
NAETC-7649

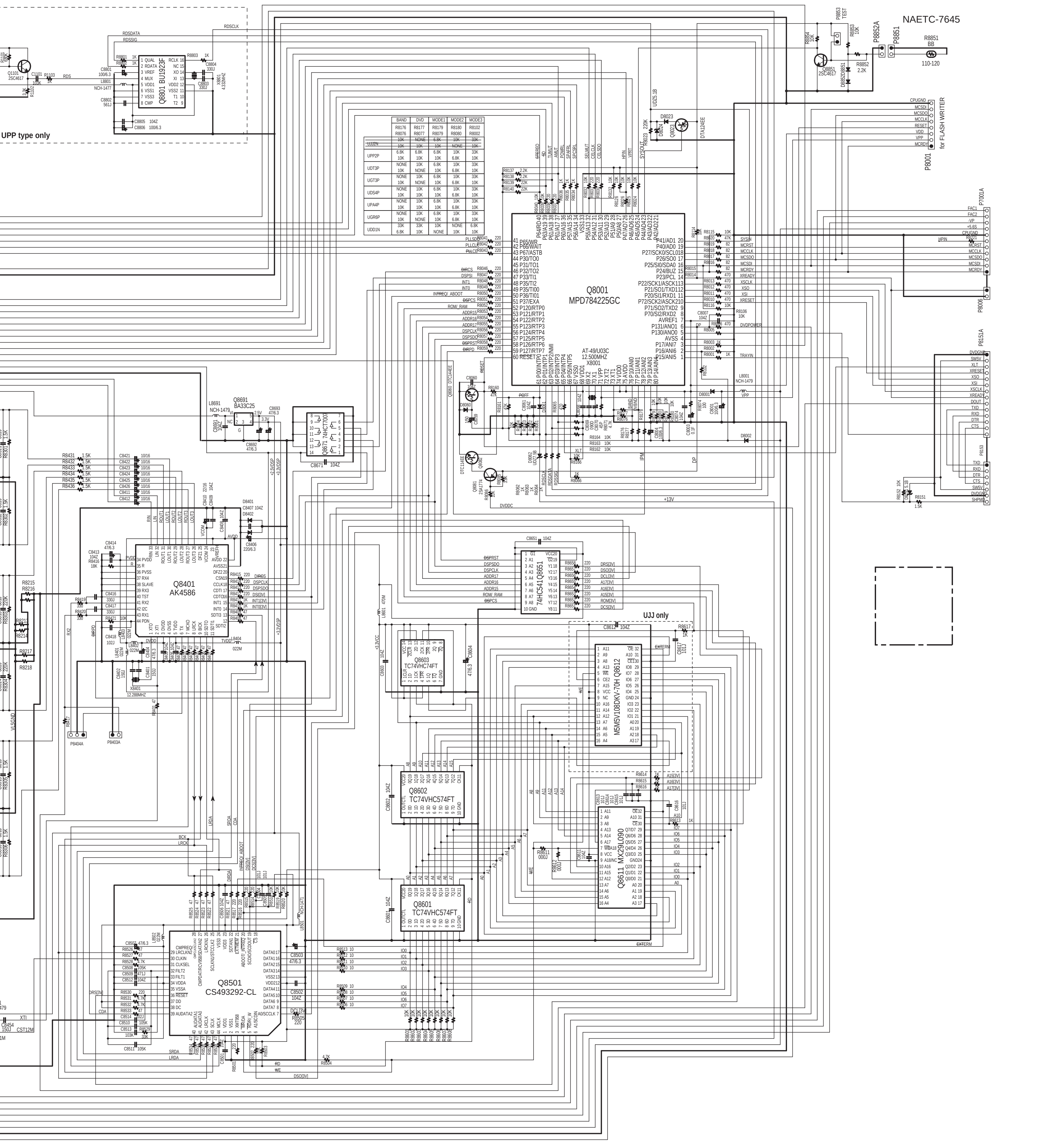
SCHEMATIC DIAGRAMS-2

DSP SECTION

NADG-7636



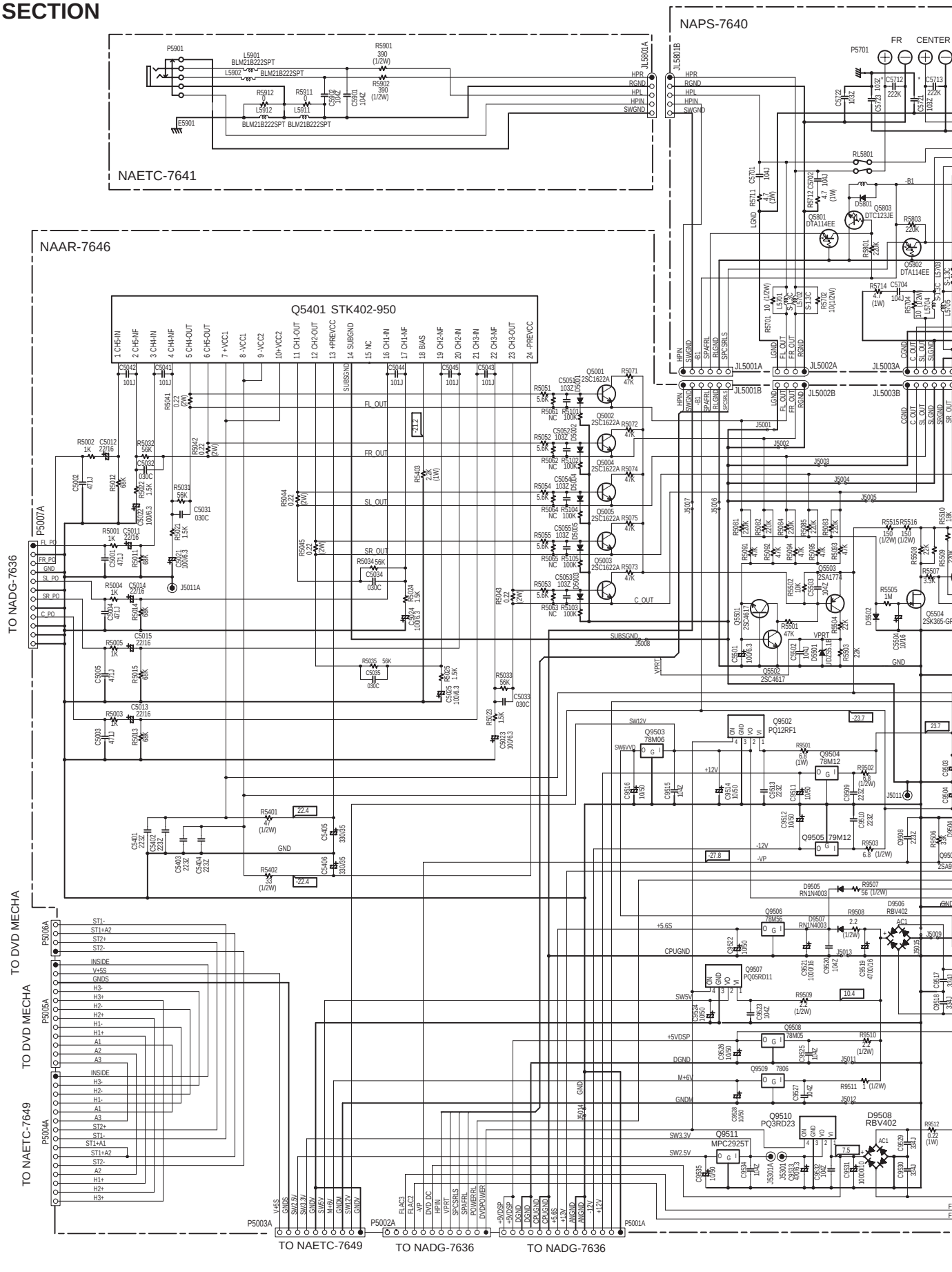
	E	F	G	H

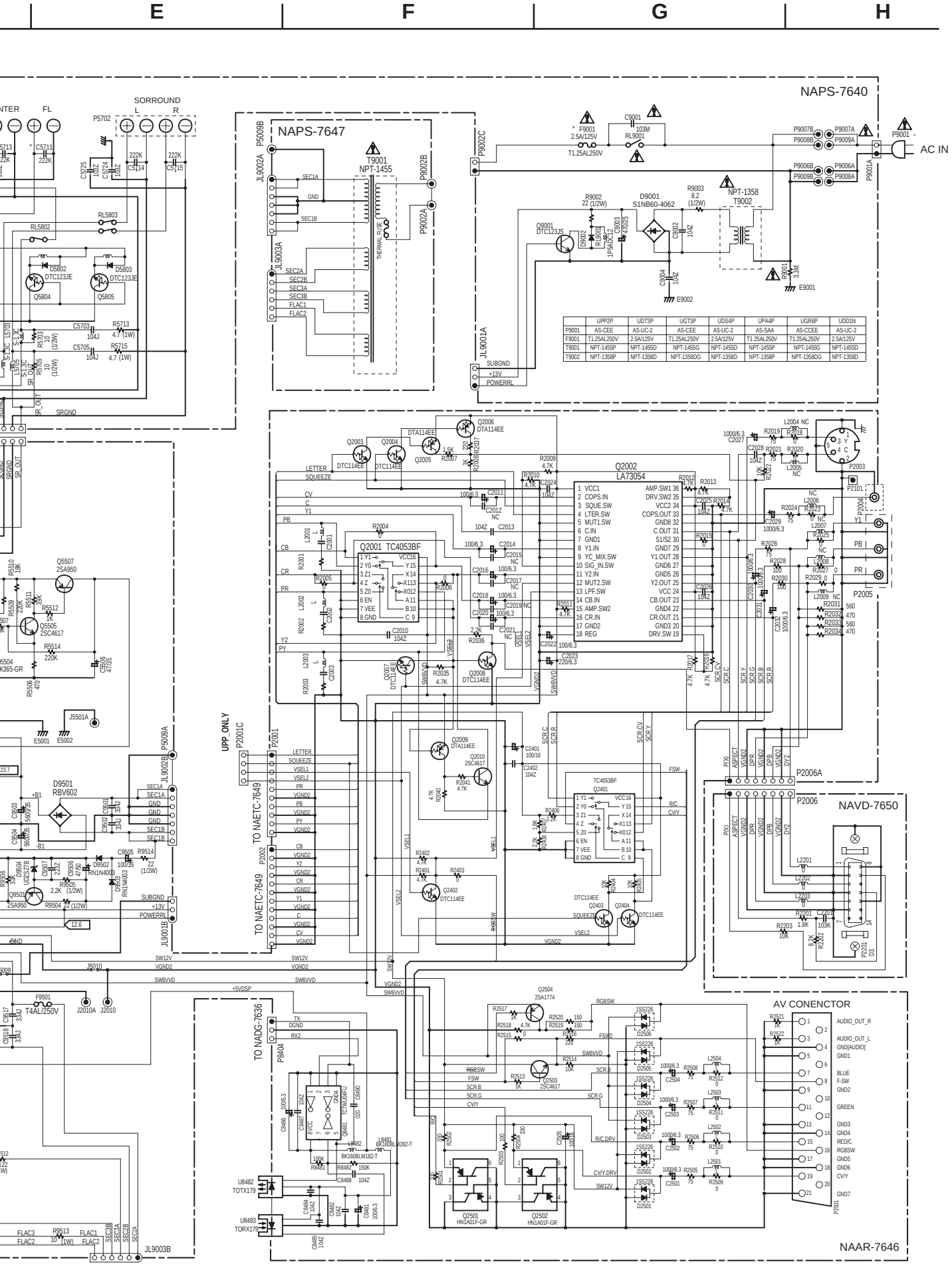

NAETC-7645
UPP type only
UJJ only
Q8801 BU1923F
X8801 4.332MHZ
Q1101 2SC4617
Q8001 MPD784225GC
AT-49/U03C 12.500MHZ X8001
Q8401 AK4586
X8401 12.288MHZ
Q8691 BA33C25
Q8671 74HCT7007
Q8651 74HC541
Q8603 TC74VHC74FT
Q8602 TC74VHC574FT
Q8601 TC74VHC574FT
Q8612 M5M5V108DKV-70H
Q8611 MX29L090
Q8501 CS493292-CL
Q8851 2SC4617
Q8023 DTA124EE
Q8060 DTC144EE
Q8082 DTC114EE
Q8081 2SA1774
P8001 for FLASH WRITER
P8852A
P8851
R8851 BB 110-120
P8853 TEST
P7001A
P8006
P8151A
P8153
P8404A
P8403A
RDSCLK
RDSDATA
RDSSIG
+13V
DVDDC
DVDPOWER
TRAYIN
EXTERM

	BAND	DVD	MODE1	MODE2	MODE3
	R8176	R8177	R8179	R8180	R8102
	R8076	R8077	R8079	R8080	R8002
~~UJJ2N~~	~~10K~~	~~NONE~~	~~6.8K~~	~~10K~~	~~33K~~
	~~10K~~	~~10K~~	~~10K~~	~~NONE~~	~~10K~~
UPP2P	6.8K	6.8K	6.8K	10K	33K
	10K	10K	10K	6.8K	10K
UDT3P	NONE	10K	6.8K	10K	33K
	10K	NONE	10K	6.8K	10K
UGT3P	NONE	10K	6.8K	10K	33K
	10K	NONE	10K	6.8K	10K
UDS4P	NONE	10K	6.8K	10K	33K
	10K	10K	10K	6.8K	10K
UPA4P	NONE	10K	6.8K	10K	33K
	10K	10K	10K	6.8K	10K
UGR6P	NONE	10K	6.8K	10K	33K
	10K	NONE	10K	6.8K	10K
UDD1N	33K	33K	10K	NONE	6.8K
	6.8K	10K	NONE	10K	10K

SCHEMATIC DIAGRAMS-3

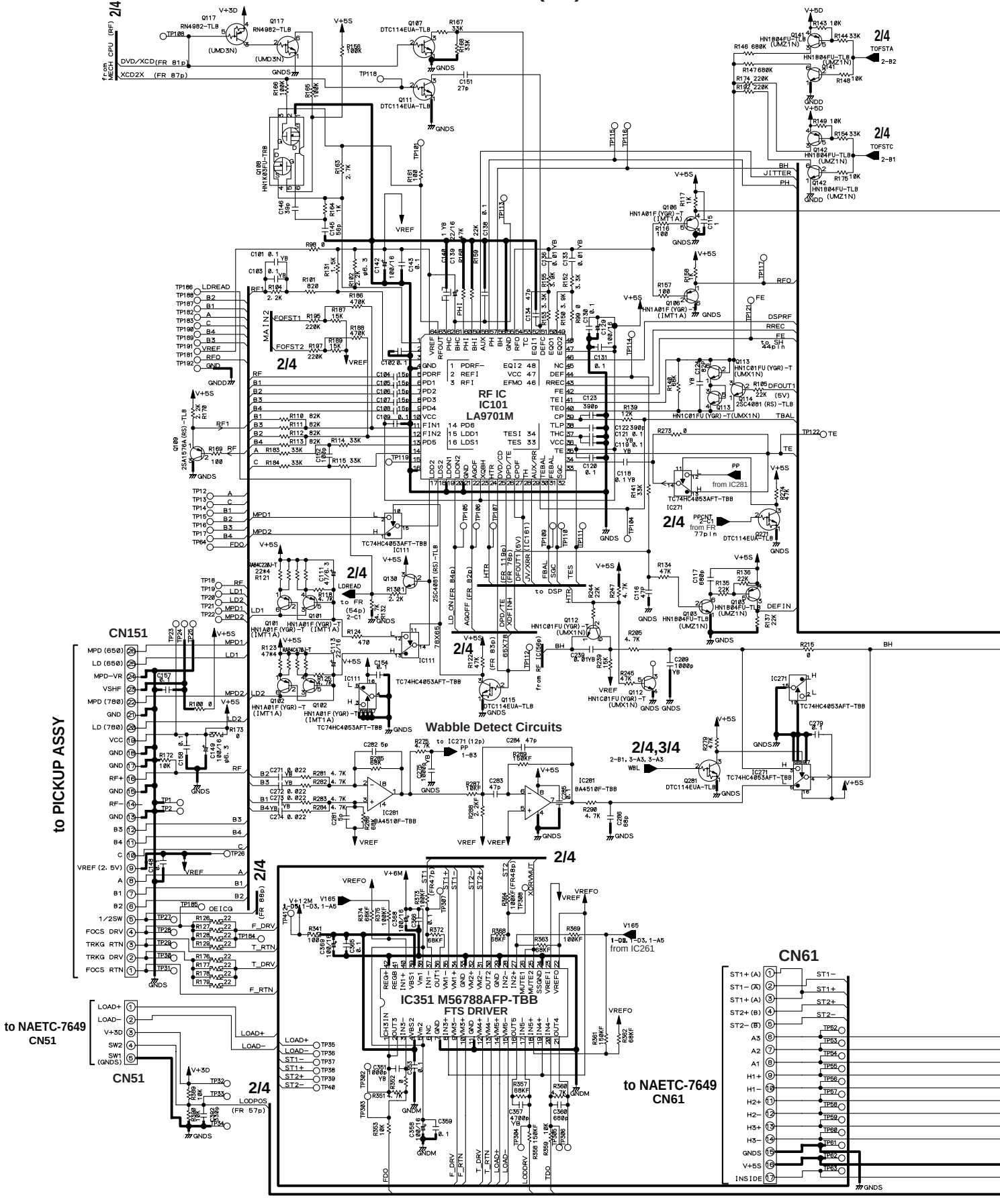
AUDIO SECTION

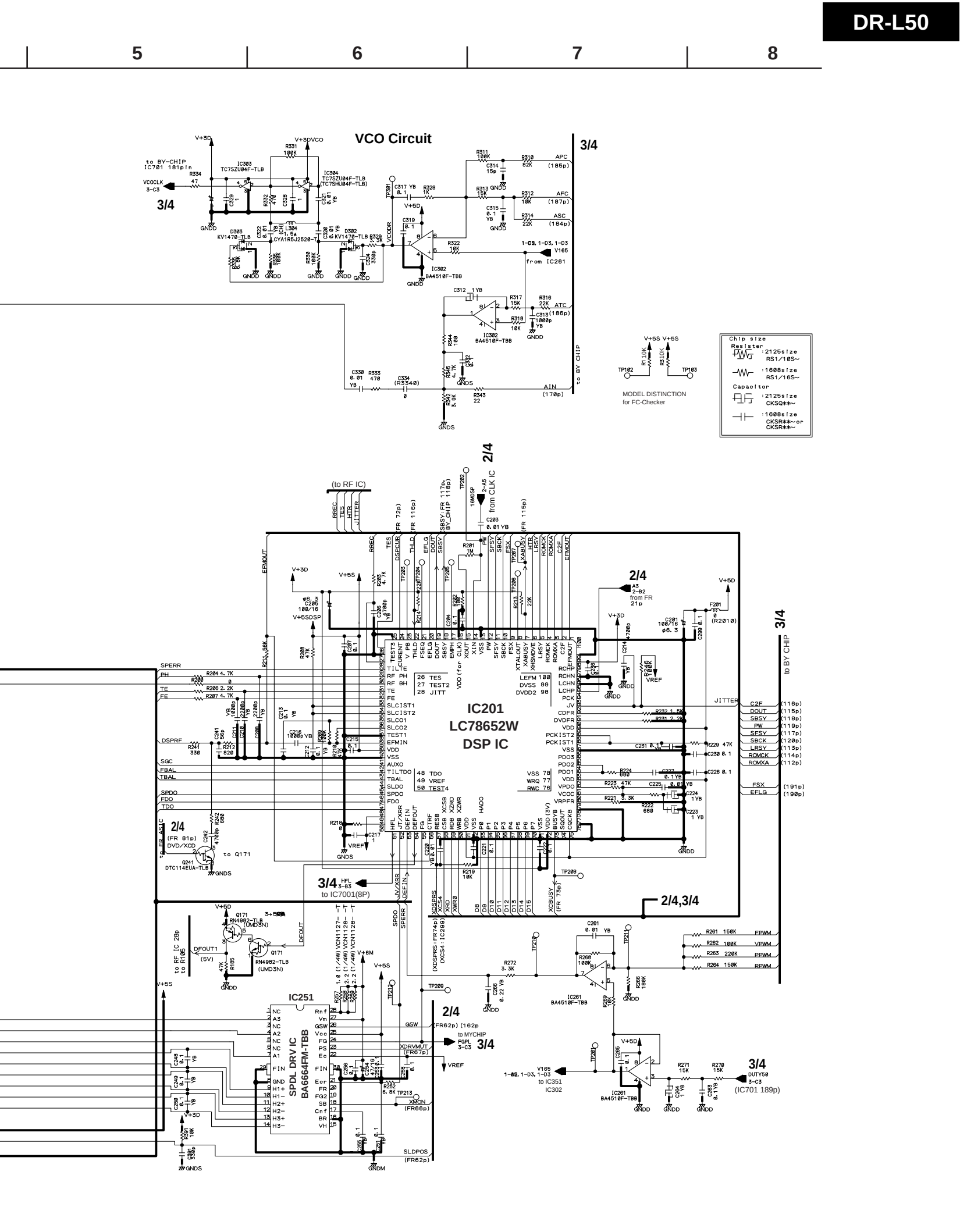



E
F
G
H
NAPS-7640
NAPS-7647
AC IN
NAVD-7650
AV CONENCTOR
NAAR-7646
TO NAETC-7649
TO NADG-7636
UPP_ONLY
Q2002
LA73054
Q2001 TC4053BF
TC4053BF
Q2401
T9001
NPT-1455
T9002
NPT-1358
D9001
S1NB60-4062
F9001
2.5A/125V
T1.25AL250V
RL9001
RL5803
RL5802
Q5507
2SA950
Q5505
2SC4617
Q5504
2SK365-GR
D9501
RBV602
Q9501
2SA950
T4AL/250V
F9501
Q2504
2SA1774
Q2503
2SC4617
Q2501
HN1A01F-GR
Q2502
HN1A01F-GR
U8482
TOTX179
U8483
TORX179
SUBGND
+13V
POWERRL
SRGND
PR_OUT
SR_OUT
+5VDSP
SW12V
SW6VVD
VGND2
FSW
RGBSW
CVIY
R/C.DRV
SCR.R
SCR.G
SCR.B
SCR.C
SCR.Y
SCR.V
VSEL1
VSEL2
P2001
P2001C
P2002
P2003
P2004
P2005
P2006
P2006A
P2101
P2201
P5009A
P5009B
P9002A
P9002B
P9002C
P9001
P9001A
P9007A
P9007B
P9008A
P9008B
P9009A
P9009B
JL9002A
JL9002B
JL9003A
JL9003B
JL9001A
JL9001B
P8404
P2501
J5010
J5501A
J2010A
J2010
E5001
E5002
E9001
E9002
SEC1A
SEC1B
SEC2A
SEC2B
SEC3A
SEC3B
FLAC1
FLAC2
THERMAL FUSE
LETTER
SQUEEZE
CV
Y1
PB
CB
PR
Y2
PY
CR
VSEL1
VSEL2
SW6VVD
VGND2
SW12V
+5VDSP
RGBSW
FSW
SCR.B
SCR.G
CVIY
R/C.DRV
SCR.R
SCR.C
SCR.Y
SCR.V
AUDIO_OUT_R
AUDIO_OUT_L
GND[AUDIO]
GND1
BLUE
F-SW
GND2
GREEN
GND3
GND4
RED/C
RGBSW
GND5
GND6
CV/Y
GND7

SCHEMATIC DIAGRAMS-4

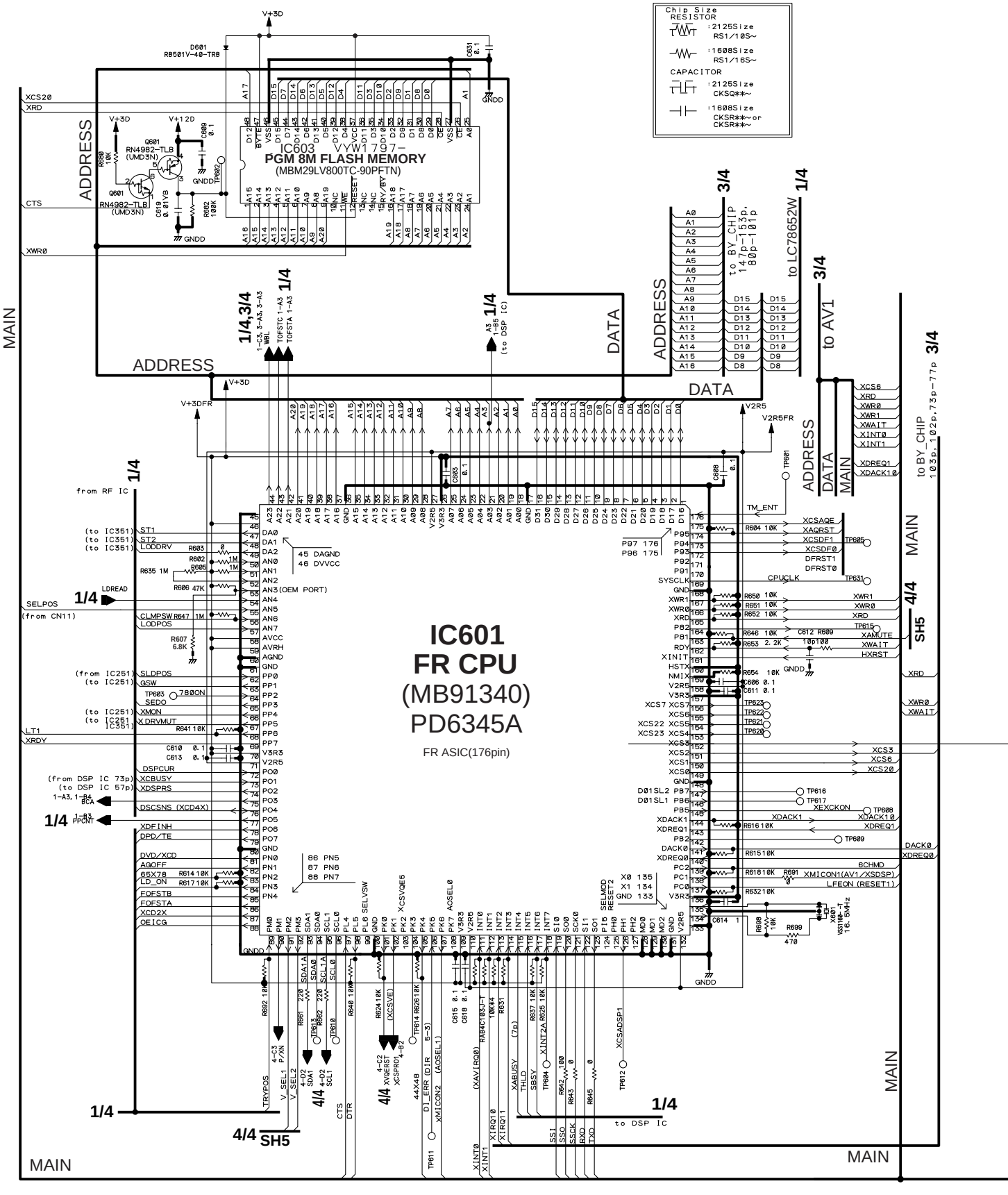
DVD MAIN BOARD: DB-VPB314/XJ / DB-VPB313/XJ (1/4)

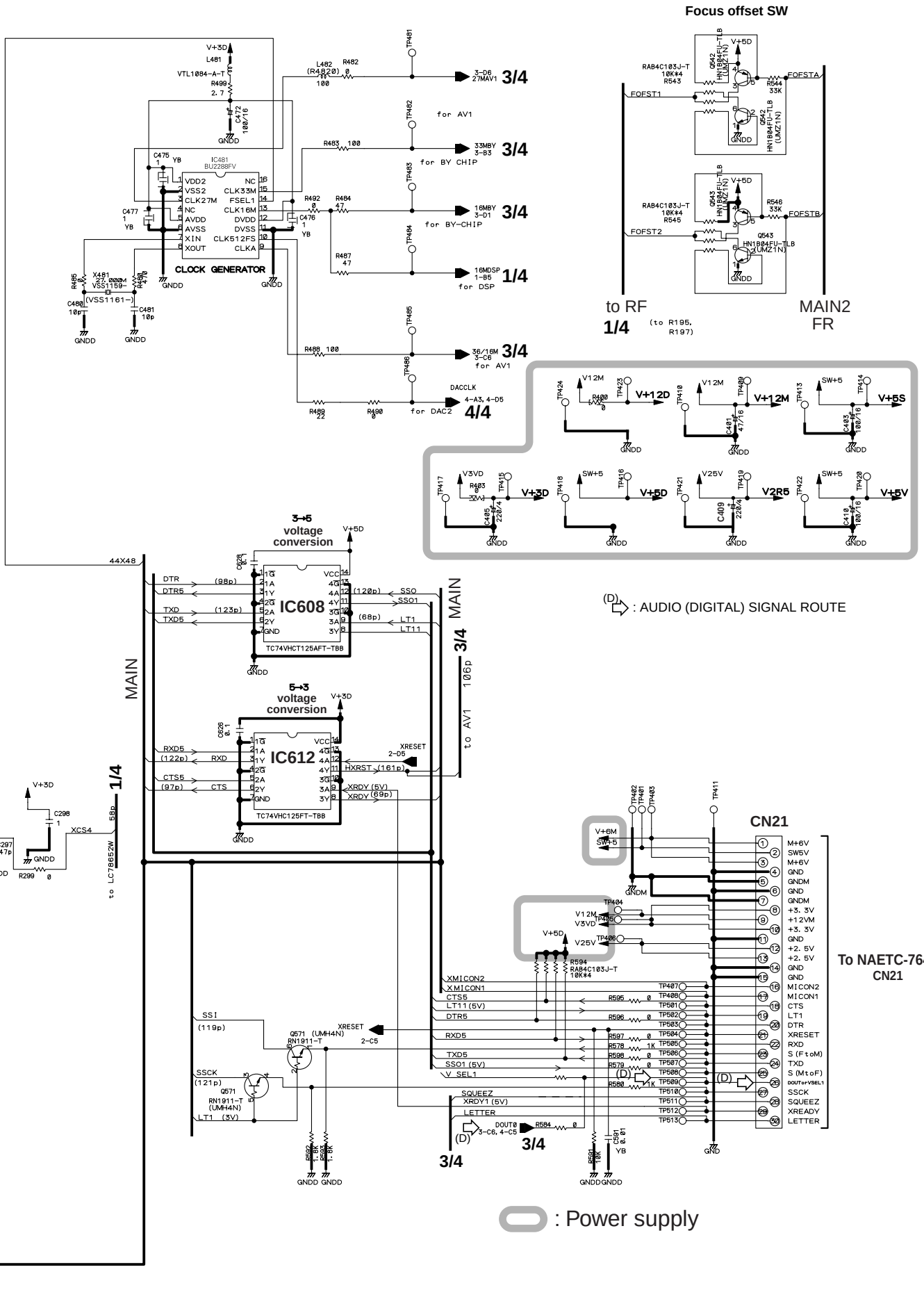



5
6
7
8
VCO Circuit
3/4
2/4
IC201
LC78652W
DSP IC
IC251
SPDL DRV IC
BA6664FM-TBB
IC261
BA4510F-TBB
IC302
BA4510F-TBB
IC303
TC7SZU04F-TLB
IC304
TC75ZU04F-TLB (TC75HU04F-TLB)
Chip size
Resister
:2125size RS1/10S~
:1608size RS1/16S~
Capacitor
:2125size CKSQ**~
:1608size CKSR**~ or CKSR**~
MODEL DISTINCTION for FC-Checker
to BY CHIP
from CLK IC
(to RF IC)
to IC7001(8P)
to MYCHIP
to IC351 IC302
to Q171
to FR ASIC
to RF IC 28p
to R105
(IC701 189p)

SCHEMATIC DIAGRAMS-5

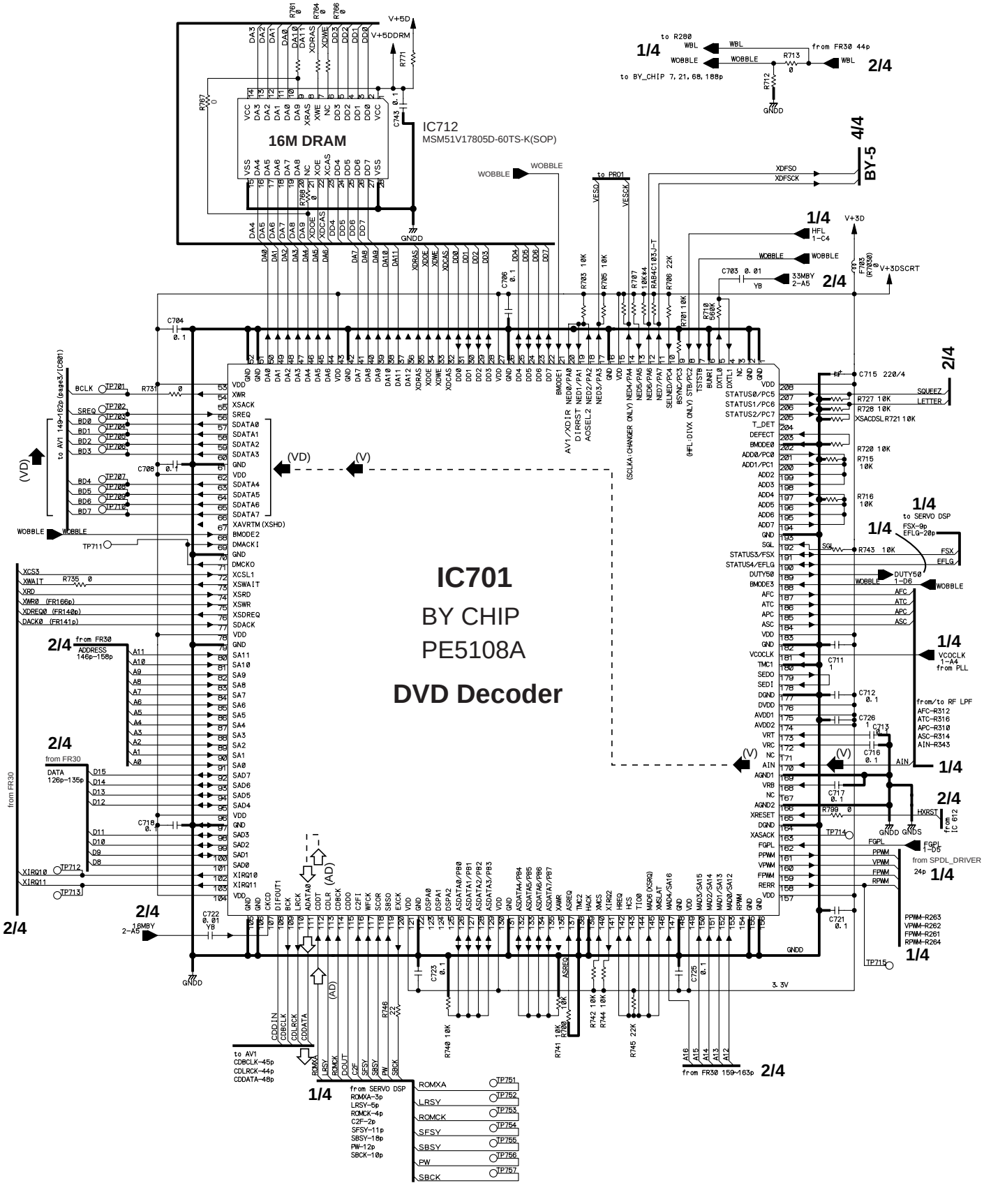
DVD MAIN BOARD : DB-VPB314/XJ / DB-VPB313/XJ (2/4)

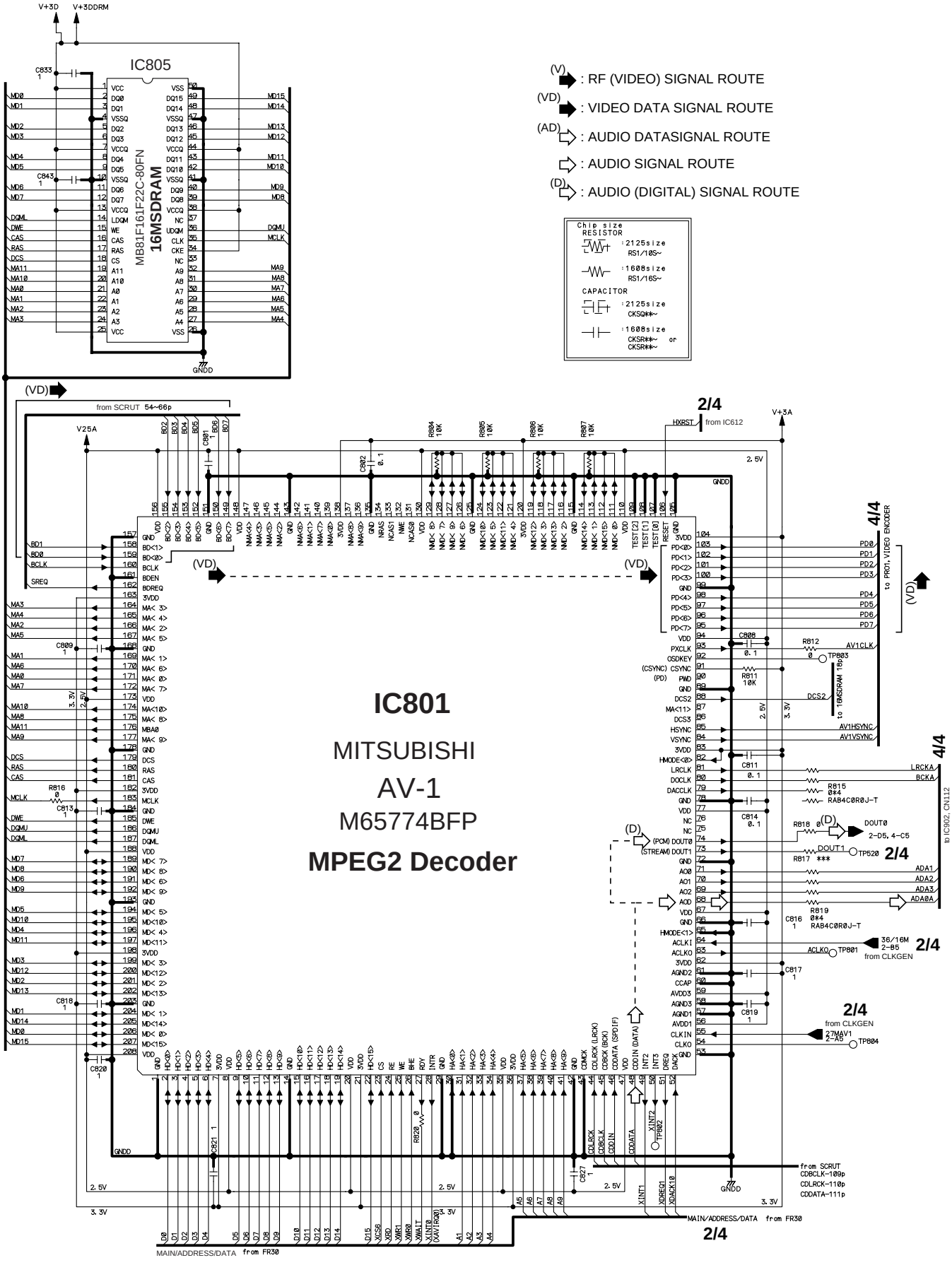



Focus offset SW
CLOCK GENERATOR
IC481
BU2288FV
3/4
1/4
4/4
to RF
1/4
(to R195, R197)
MAIN2
FR
3→5
voltage
conversion
5→3
voltage
conversion
IC608
IC612
TC74VHCT125AFT-TBB
TC74VHC125FT-TBB
MAIN
to AV1
to LC78652W
(D) : AUDIO (DIGITAL) SIGNAL ROUTE
CN21
To NAETC-7649
CN21
: Power supply

SCHEMATIC DIAGRAMS-6

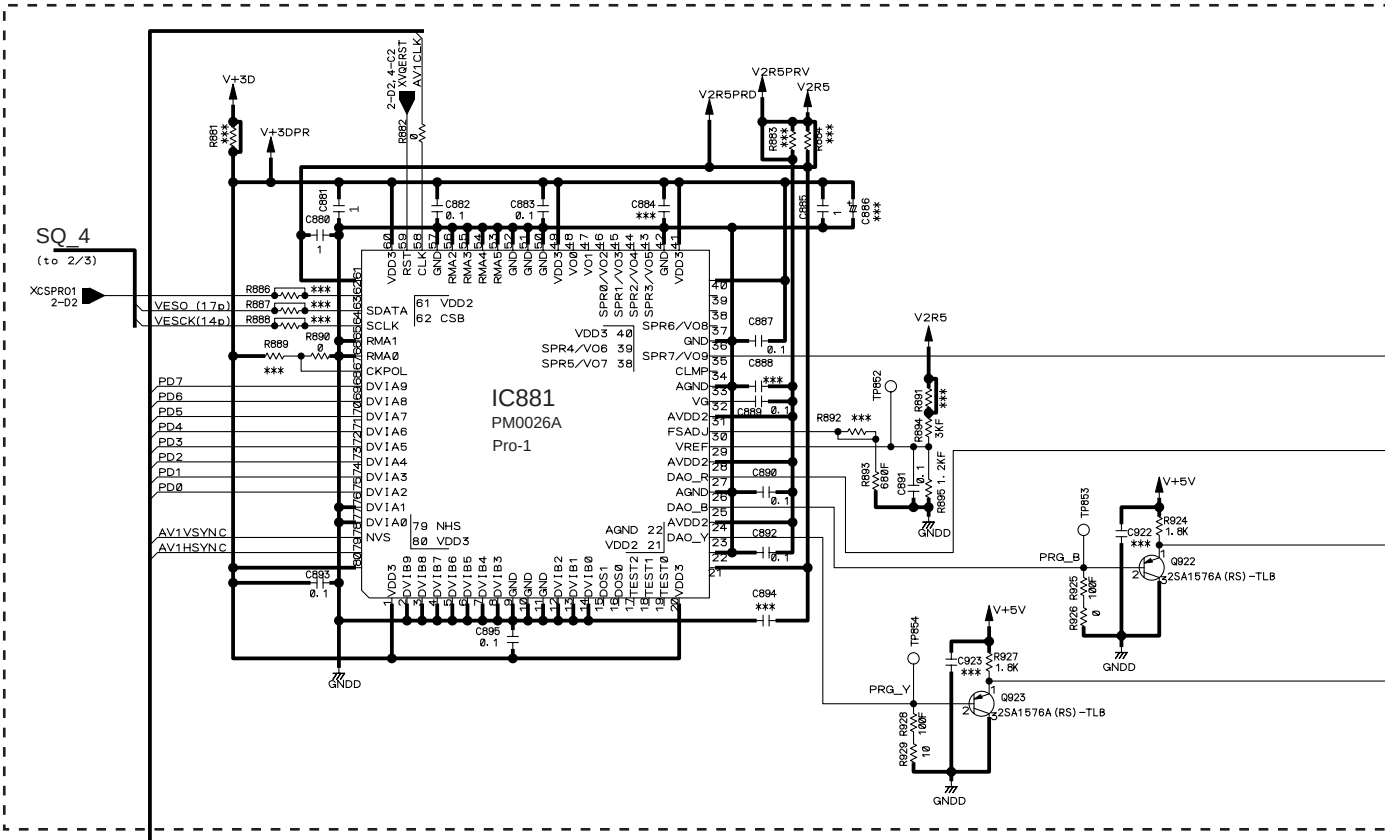
DVD MAIN BOARD: DB-VPB314/XJ / DB-VPB313/XJ (3/4)

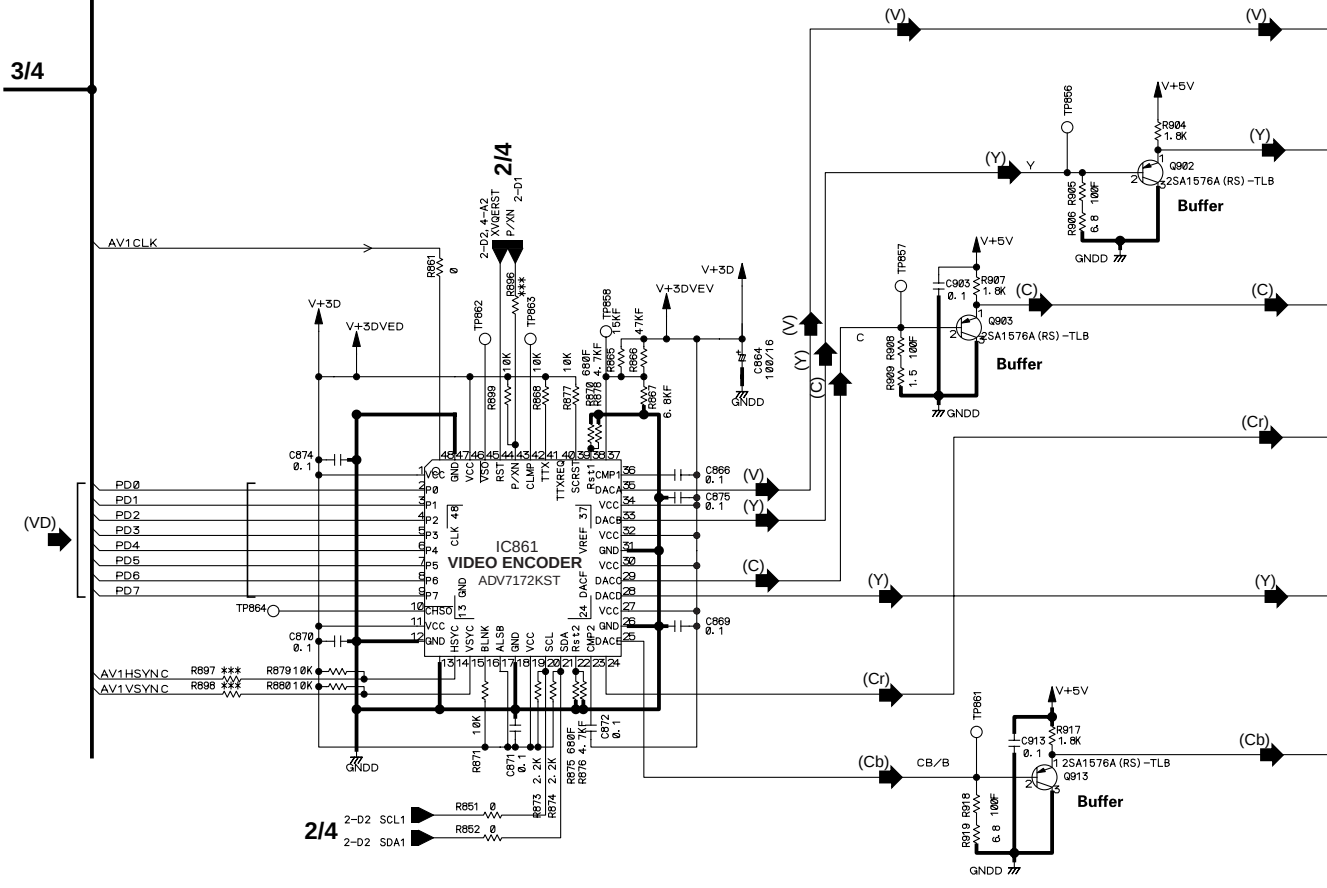



IC805
MB81F161F22C-80FN
16MSDRAM
(V) : RF (VIDEO) SIGNAL ROUTE
(VD) : VIDEO DATA SIGNAL ROUTE
(AD) : AUDIO DATASIGNAL ROUTE
: AUDIO SIGNAL ROUTE
(D) : AUDIO (DIGITAL) SIGNAL ROUTE
Chip size RESISTOR
CAPACITOR
IC801
MITSUBISHI
AV-1
M65774BFP
MPEG2 Decoder
2/4
4/4
from SCRUT 54~66p
from IC612
to PRO1, VIDEO ENCODER
to IC902, CN112
from CLKGEN
from SCRUT
MAIN/ADDRESS/DATA from FR30

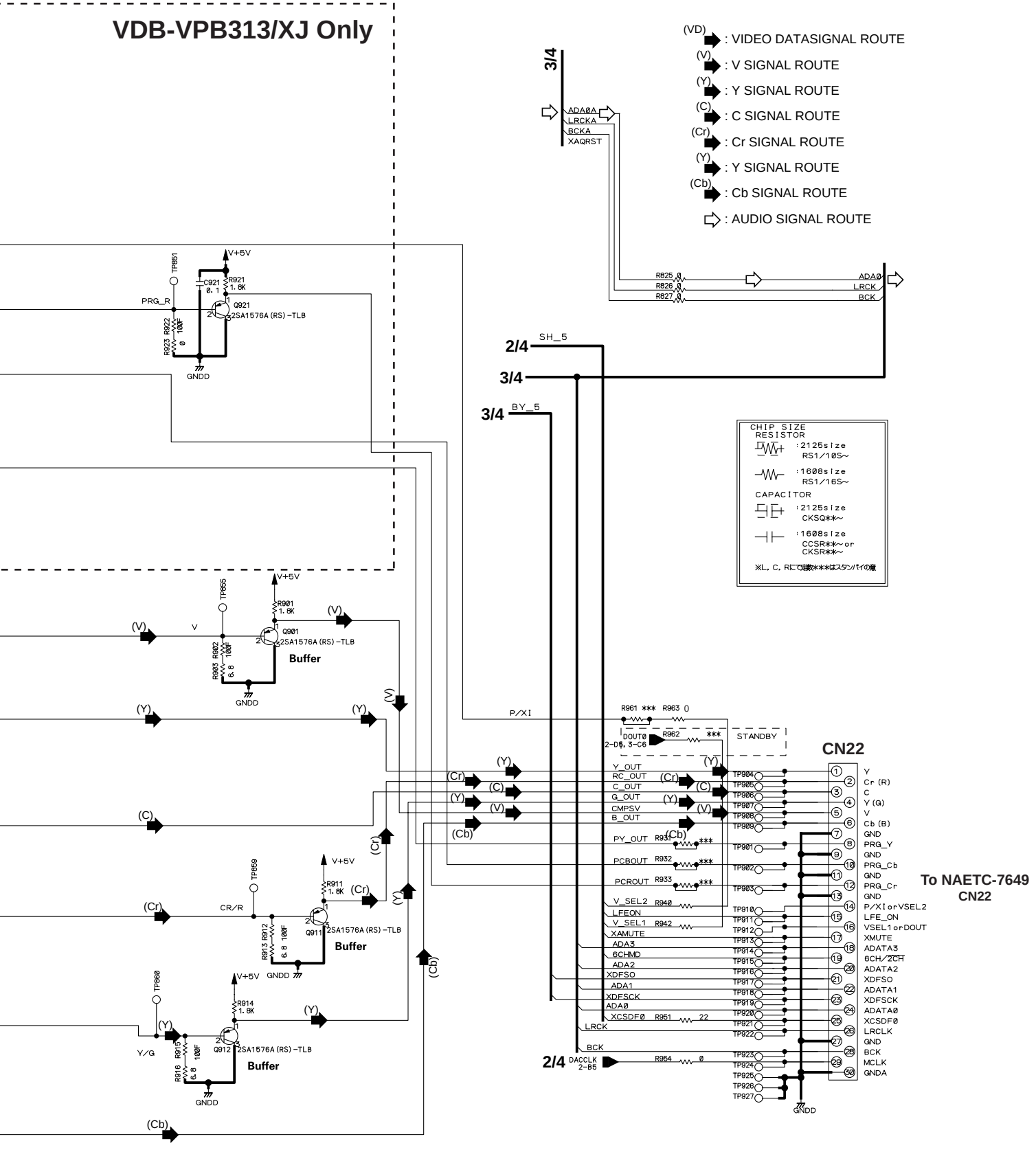
SCHEMATIC DIAGRAMS-7

DVD MAIN BOARD: DB-VPB314/XJ / DB-VPB313/XJ (4/4)

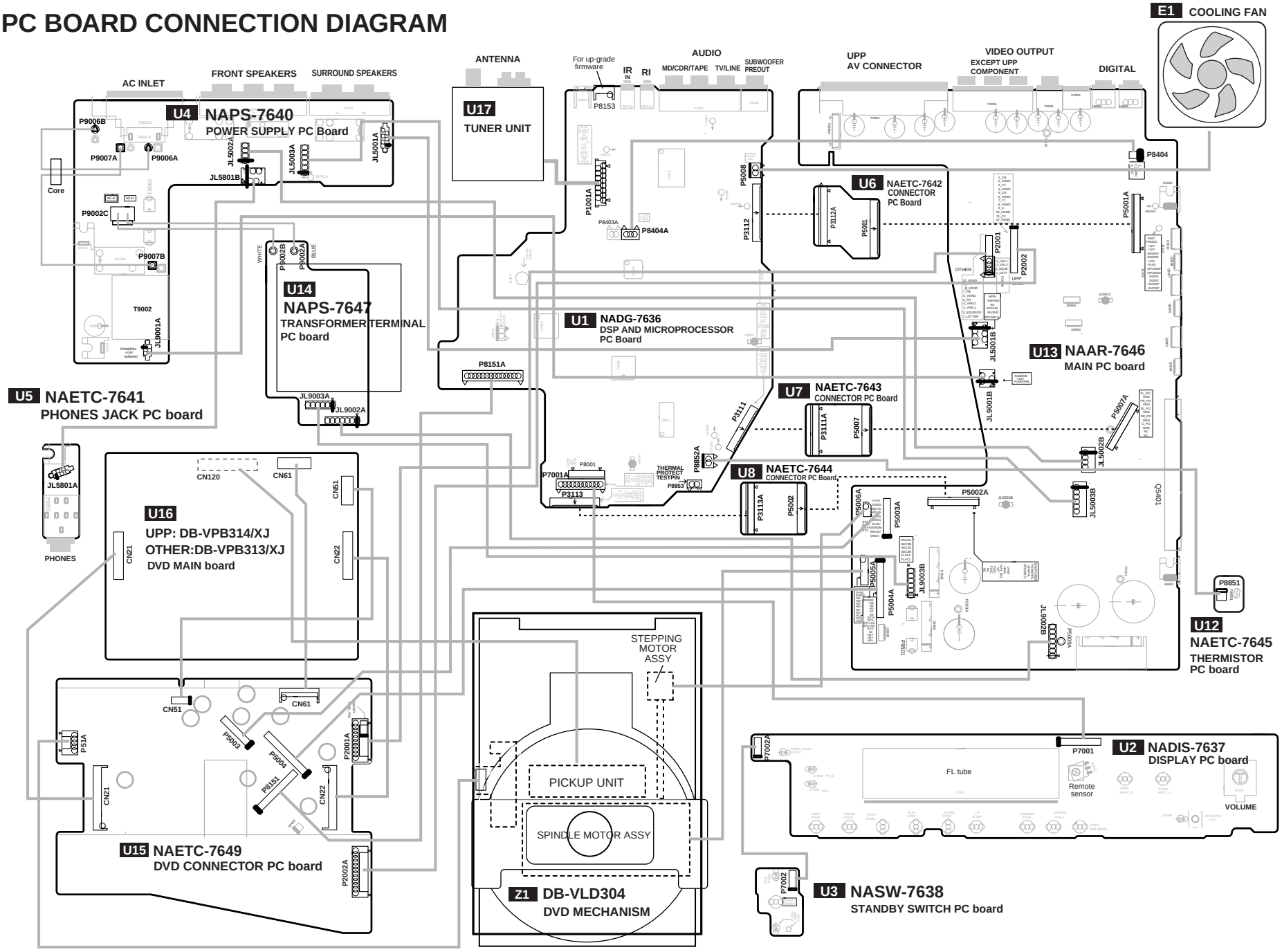




VDB-VPB313/XJ Only



PC BOARD CONNECTION DIAGRAM

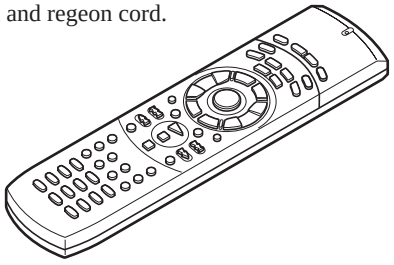


UPGRADE FIRMWARE-1

Prepares for upgrade firmware

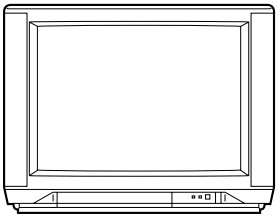
REMOTE CONTROLLER
RC-484M
Part No. 24140484

Required to carry out check firmware vertion and regeon cord.

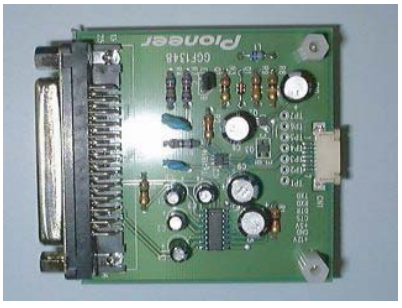


Monitor TV

Required to carry out check firmware vertion and regeon cord.

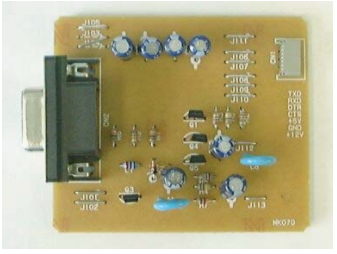


INTERFACE JIG
Part No. GGF1348



or

INTERFACE JIG (KIT)
Part No. 0J13



RS-232C Cable (Straight type Cable)

When using GGF1348

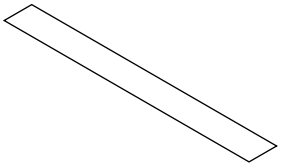
D-Sub 25pin (Female type) — D-Sub 9pin (Male type)

or

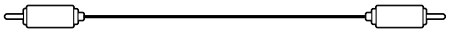
When using 0J13

D-Sub 9pin (Female type) — D-Sub 9pin (Male type)

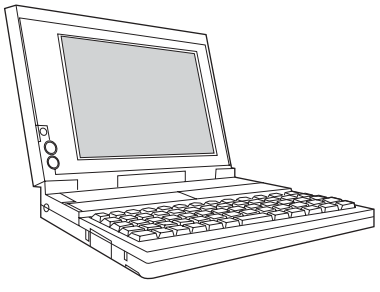
Flexible flat cable
Part No.:GGD1231 or 0F001



Video cable



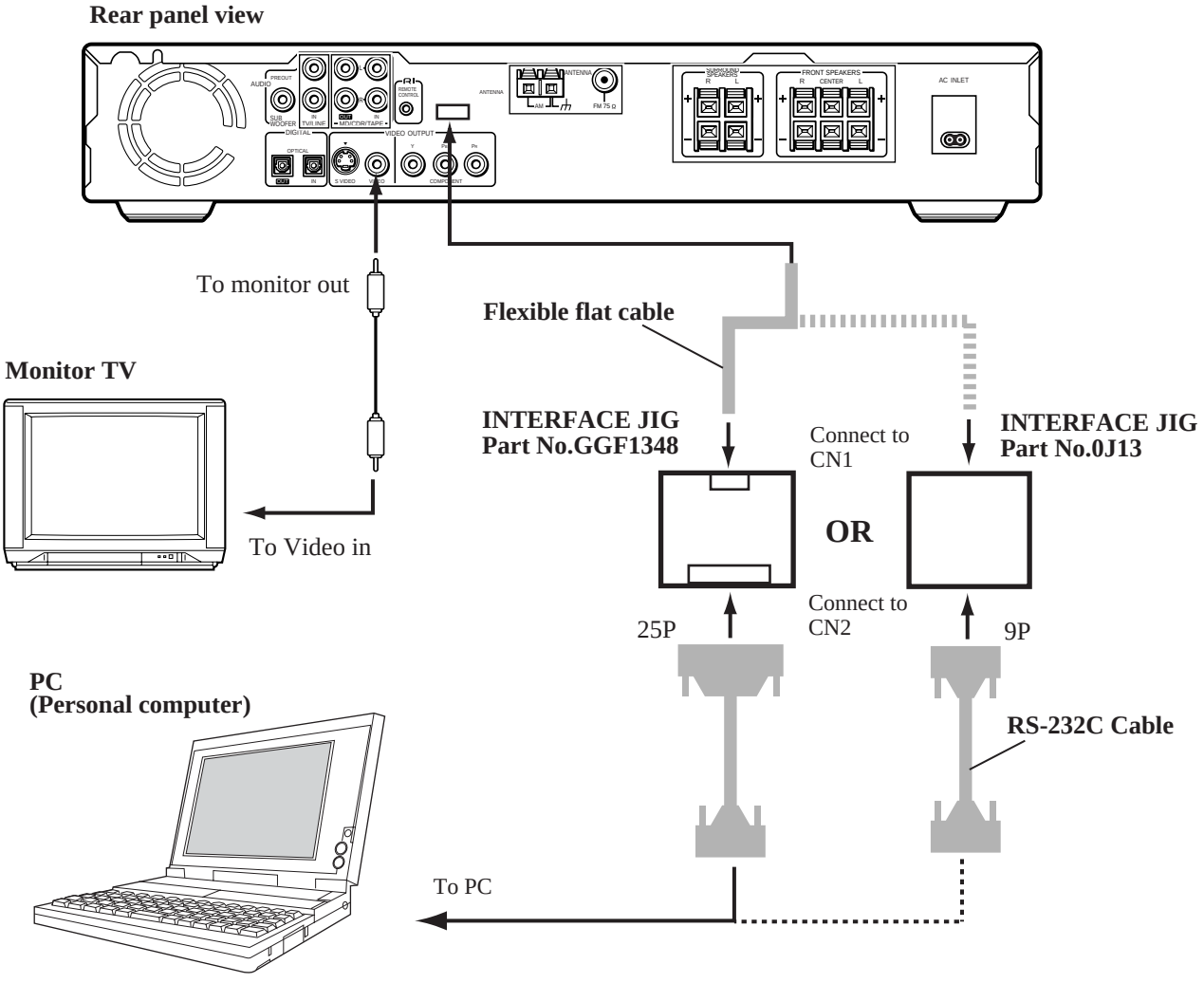
PC (Personal computer)



UPGRADE FIRMWARE-2

Connections

Rear panel view



Prepare the file required for rewriting of the firmware.

Build the folder to C drive of the hard disk of PC, and put in the file required for the folder.

The required file

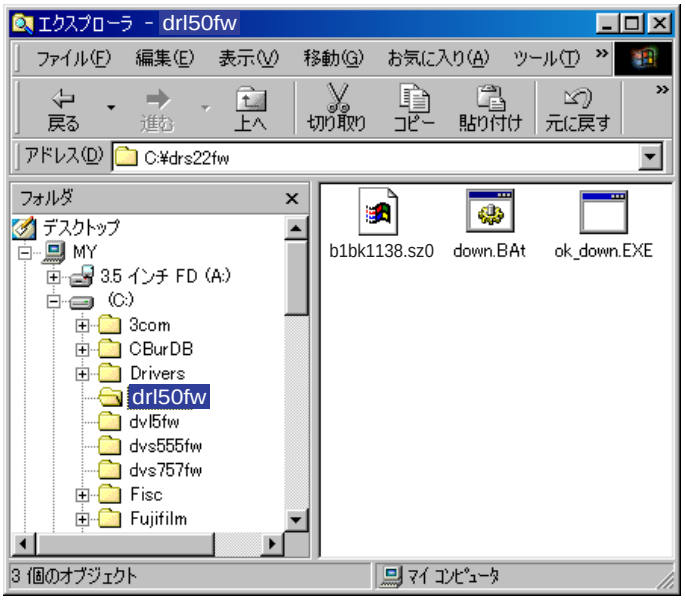
NOTE: This is one example.

1. ok_down.exe
Rewriting tools

2. down.bat
Rewriting tools

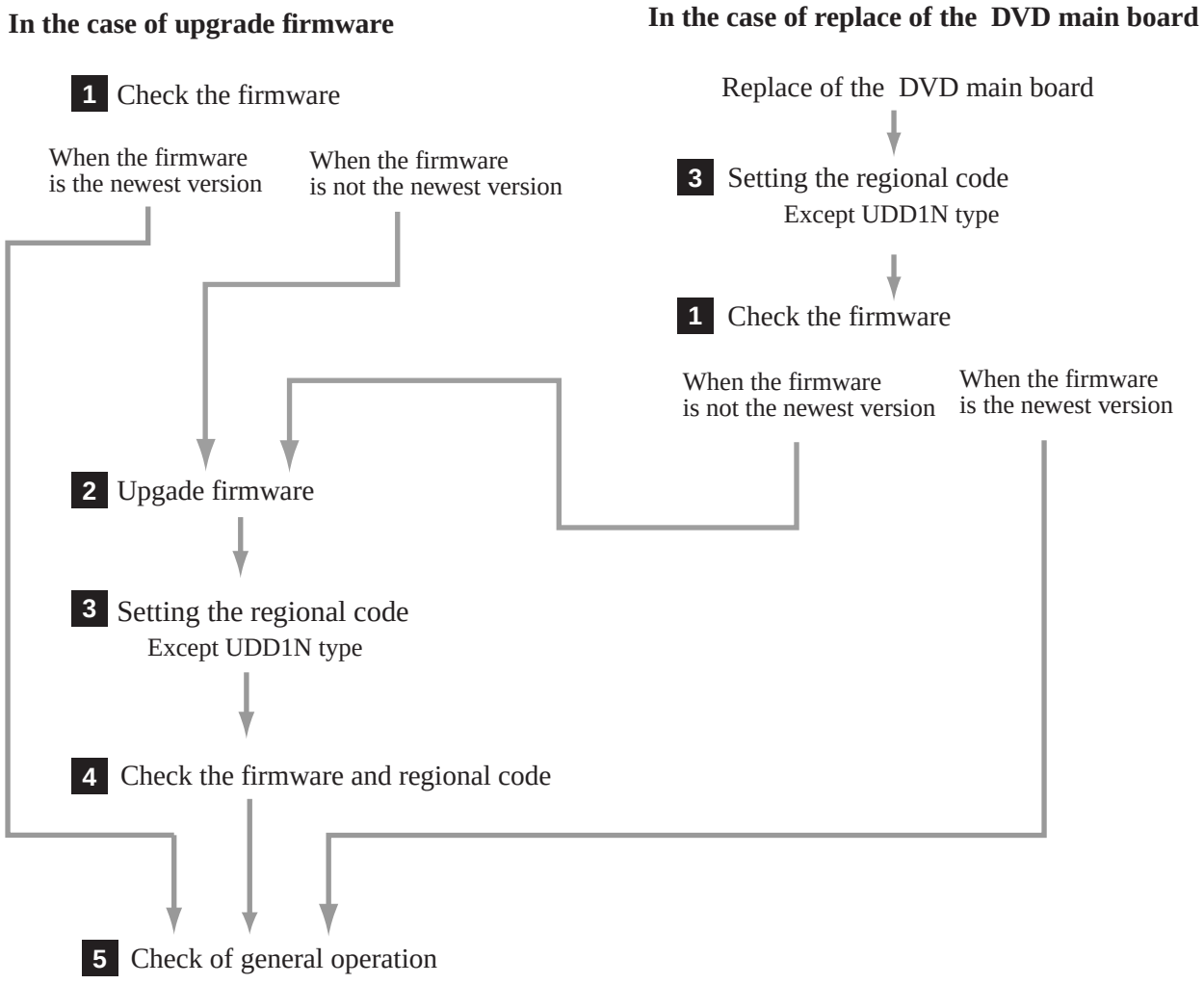
3. b1bk1128.sz0
Firmware program
The file name changes with versions of the firmware.

Explorer view of PC



UPGRADE FIRMWARE-3

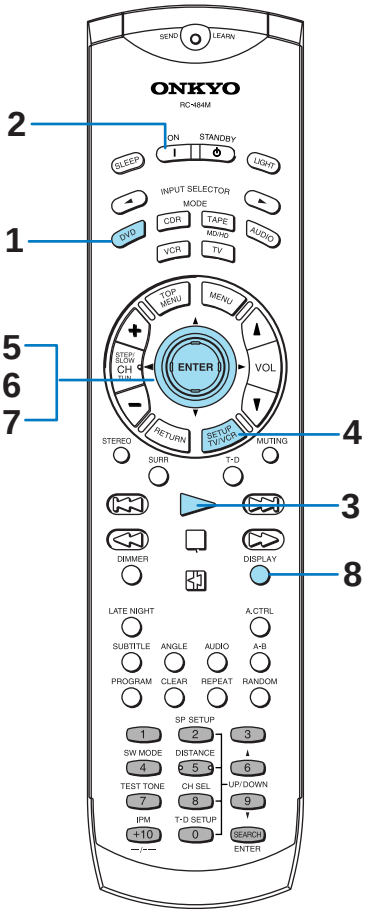
Flow chart


In the case of upgrade firmware
1 Check the firmware
When the firmware is the newest version
When the firmware is not the newest version
2 Upgade firmware
3 Setting the regional code
Except UDD1N type
4 Check the firmware and regional code
In the case of replace of the DVD main board
Replace of the DVD main board
3 Setting the regional code
Except UDD1N type
1 Check the firmware
When the firmware is not the newest version
When the firmware is the newest version
5 Check of general operation

UPGRADE FIRMWARE-4

1 Check the firmware

Please operate it by remote controller (RC-484M).



1. Press the **DVD.**

2. Power ON the unit by press **ON.**

3. Press the **PLAY.**

4. Press **SETUP.**

5. Operate cursor button and select **General** menu.
Refer to (A)

6. Operate cursor button and select **Setup Menu mode**.
Refer to (B)

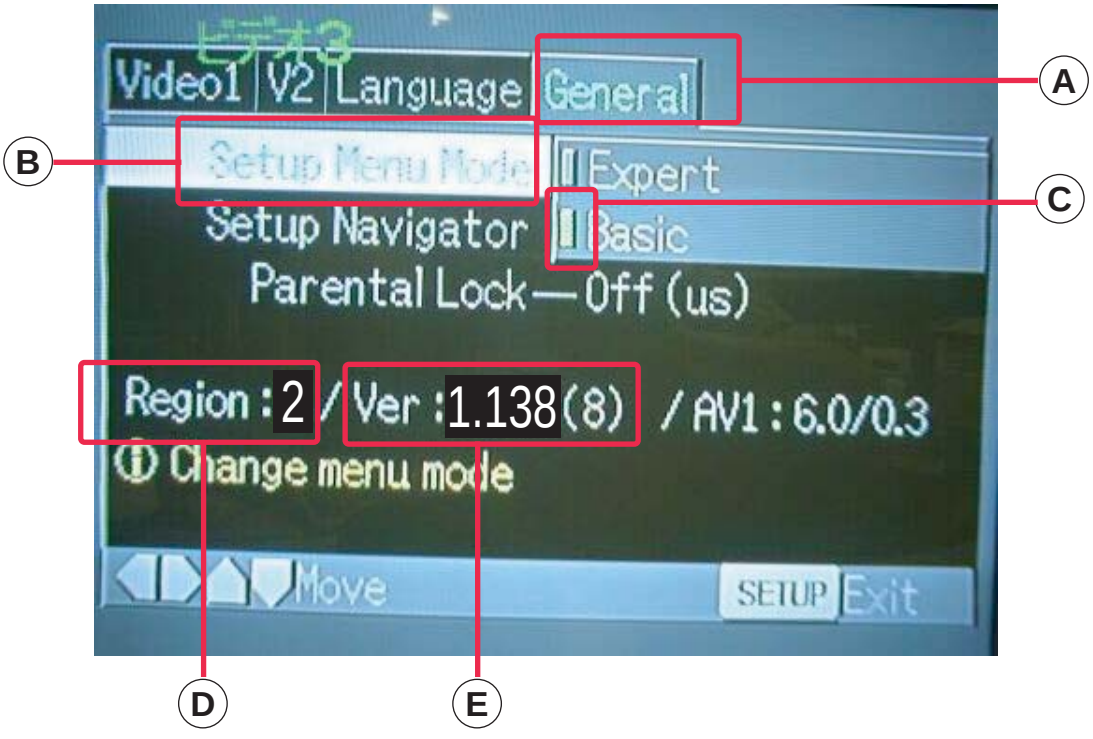
7. Operate cursor button and set as the state of **Basic**.
Refer to (C)

8. Press **DISPLAY.**

9. Check the Region cord and the firmware vertion.
Refer to (D) (E)

10. Press the **DISPLAY**.

TV monitor



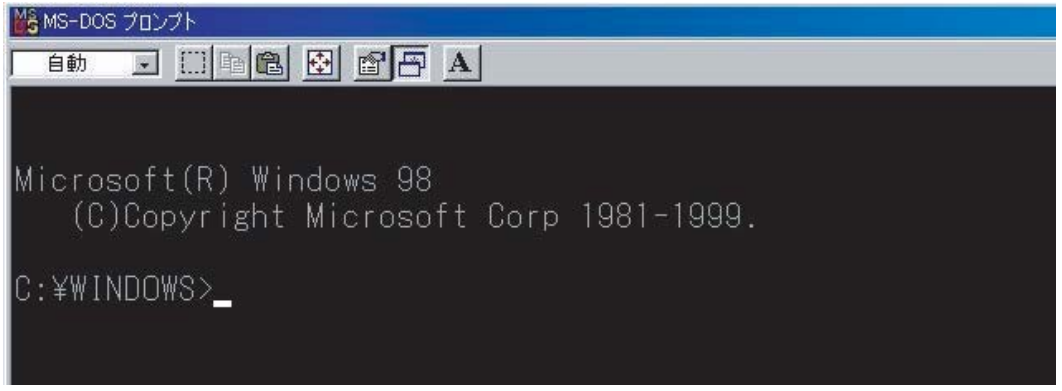
UPGRADE FIRMWARE-5

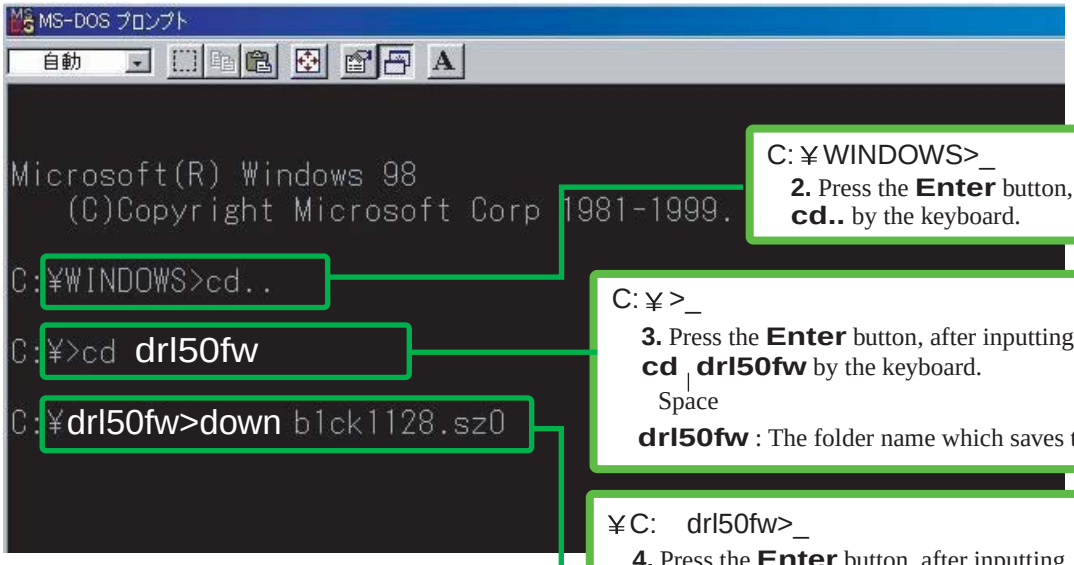
2 Upgrade firmware

[NOTES]
This procedure document supposing using Japanese PC.
The program file name, the folder name, etc. are examples.

1. Start MS-DOS prompt using the start-up menu of PC.

Windows of **MS DOS prompt**

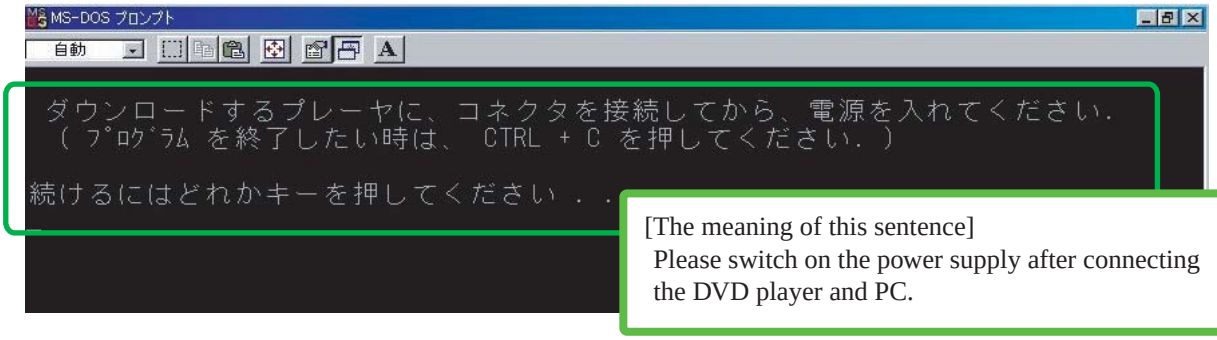




C:￥WINDOWS>_
2. Press the **Enter** button, after inputting **cd..** by the keyboard.

C:￥>_
3. Press the **Enter** button, after inputting **cd** | **drl50fw** by the keyboard.
Space
drl50fw : The folder name which saves the program file

￥C: drl50fw>_
4. Press the **Enter** button, after inputting **down** | **b1bk1138.sz0** by the keyboard.
Space | Zero
b1bk1138.sz0 : The program fail name
The file name changes with firmware version.



[The meaning of this sentence]
Please switch on the power supply after connecting the DVD player and PC.

UPGRADE FIRMWARE-6

Download procedures

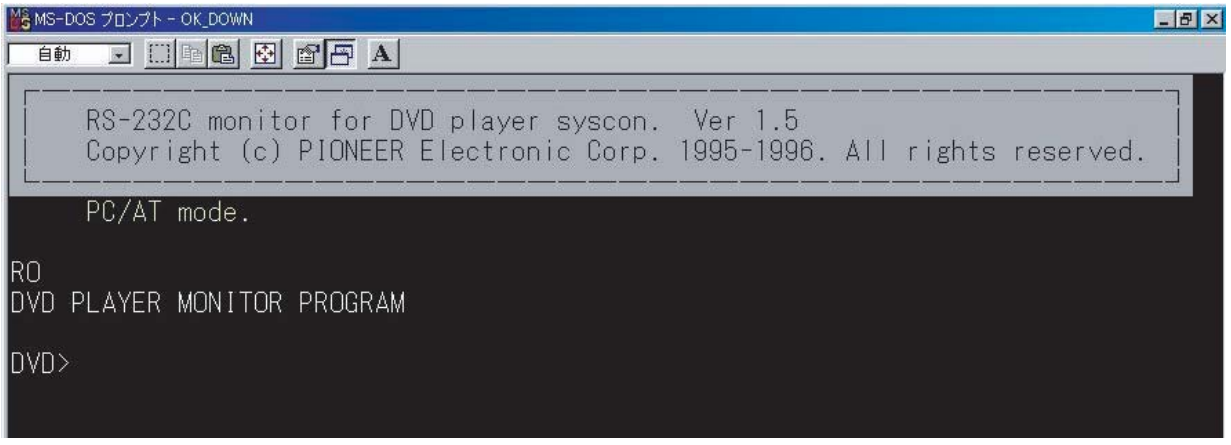
5. Check that the connection of PC with Unit.

7. Turn ON the power supply switch of the unit.

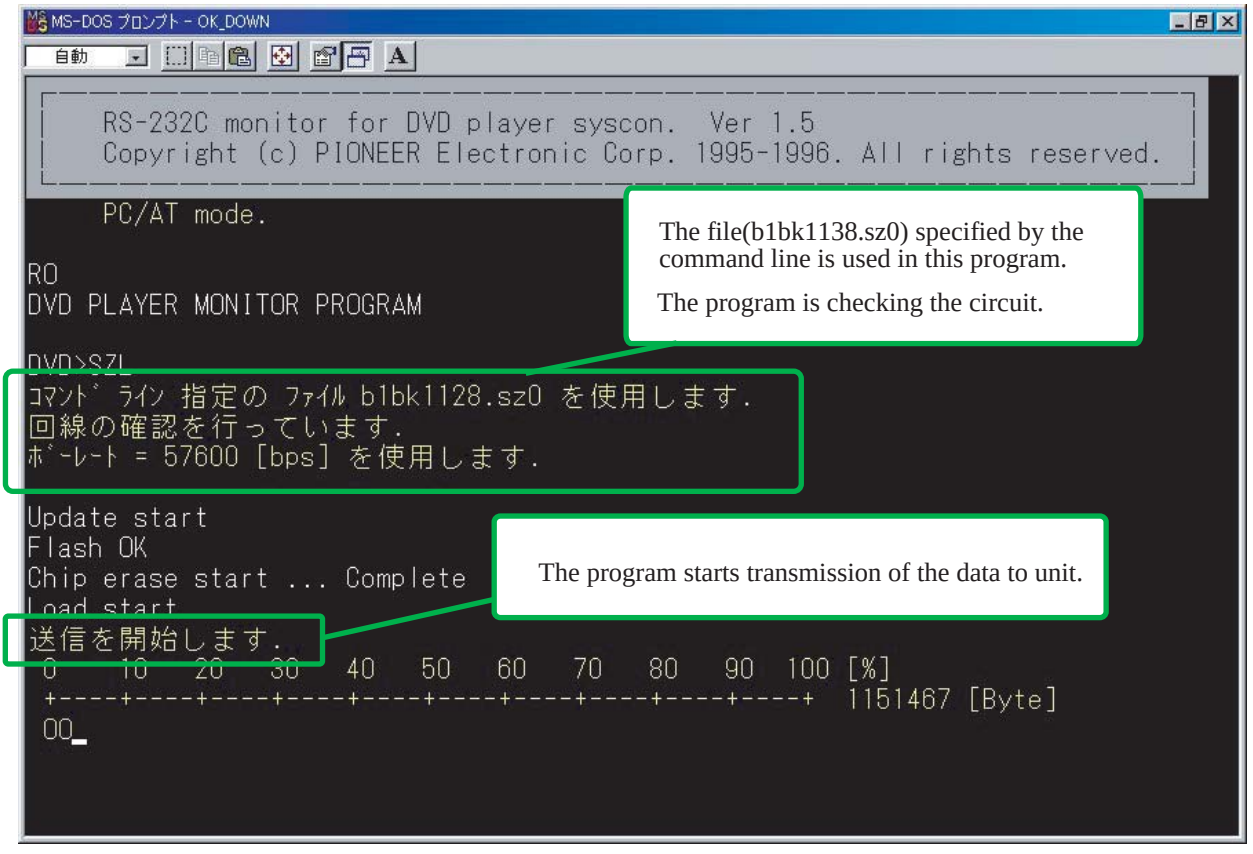
6. Check that unit is in the state of NO DISC.

8. Press the **Enter** key of PC.

9. Press the **Enter** button, after inputting **MO** by the keyboard of PC.



10. Press **ENTER** button, after inputting **SZL** by the keyboard of PC.

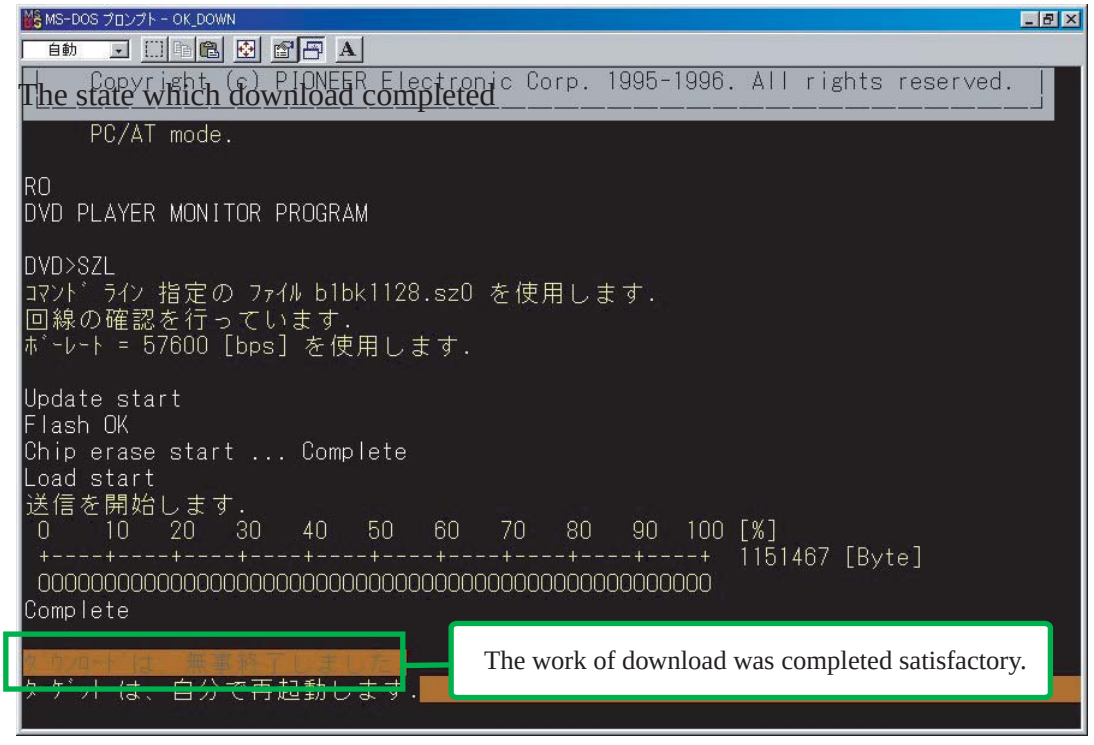

MS-DOS プロンプト - OK_DOWN
自動
RS-232C monitor for DVD player syscon. Ver 1.5
Copyright (c) PIONEER Electronic Corp. 1995-1996. All rights reserved.
PC/AT mode.
RO
DVD PLAYER MONITOR PROGRAM
DVD>SZL
ｺﾏﾝﾄﾞ ﾗｲﾝ 指定の ﾌｧｲﾙ b1bk1128.sz0 を使用します.
回線の確認を行っています.
ﾎﾞｰﾚｰﾄ = 57600 [bps] を使用します.
Update start
Flash OK
Chip erase start ... Complete
Load start
送信を開始します.
0 10 20 30 40 50 60 70 80 90 100 [%]
+----+----+----+----+----+----+----+----+----+----+ 1151467 [Byte]
OO
The file(b1bk1138.sz0) specified by the command line is used in this program.
The program is checking the circuit.
The program starts transmission of the data to unit.

FL Display

UPGRADE FIRMWARE-7

Download procedures

State witch download completed



FL Display

NO DISC

UPGRADE FIRMWARE-8

3 Setting the regional code

Except UDD1N type.

FL display

REGION INI

TV Monitor

[player's Region setting]
<1> : Region 1
<2> : Region 2
<3> : Region 3
<4> : Region 4
<5> : Region 5
<6> : Region 6

Pick out any one of these!

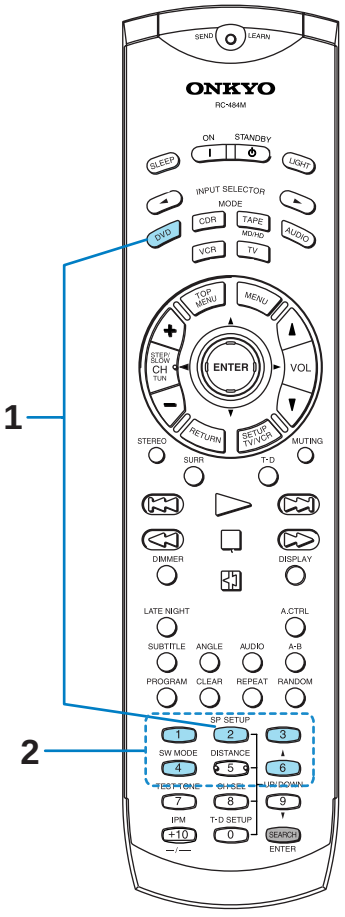
Operate it using remote controller (RC-484M).

1. Press hold down the **DVD**, then press **2(SP SETUP).**

2. Press the **number** button which suits each destination.

Correspondence table

Destination	Operation button name	Region code
MDD1N	Region cord is set automatically.	1
MPP2P	2	2
UPT3P	3	3
UDT3P	3	3
UGK3P	3	3
UPA4P	4	4
UDS4P	4	4
UGR6P	6	6



FL display

NO DISC

3. Turn OFF the unit by **STANDBY.**

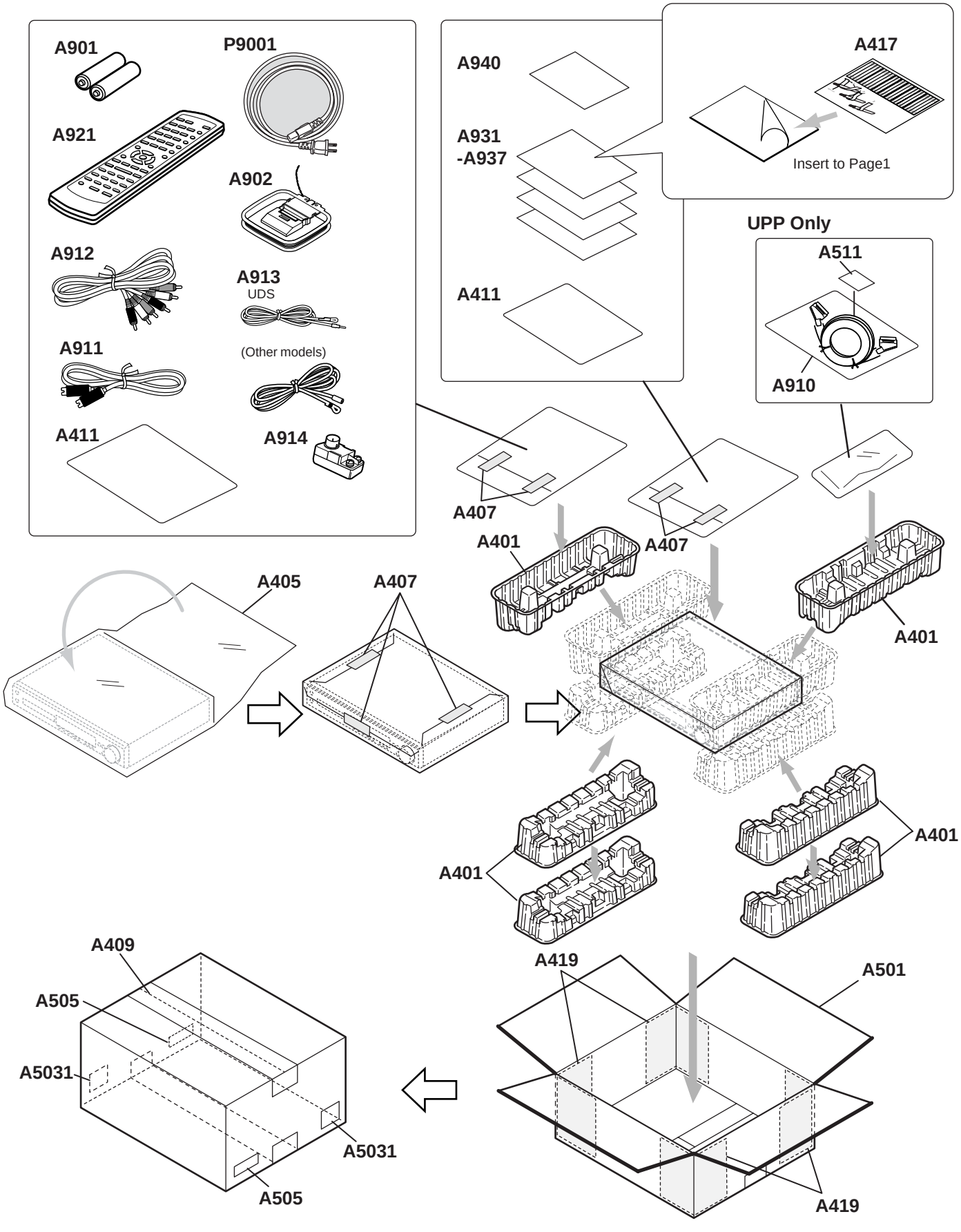
4. Disconnect the unit and the PC.

4 Chack firmware and regional cord

You check whether it is set up firmware and repional cord correctly.

Refer to **1** about check procedure.

PACKING VIEW



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